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ABSTRACT

This annual report on the state of the education professions focuses on the problem of educating students from low-income families in an attempt to sharpen understanding of the issues involved. Subjects for the chapters were chosen with respect to concern with these particular problems and because surveys had been conducted which bear on them providing new data. Chapter 1 focuses on teaching low-income students and defines some of the major issues in educating these children in inner-city schools. Chapter 2 sets forth the Commissioner's plans to allocate funds authorized by the Education Professions Development Act, most of which are directed to serving the needs of low-income children. The next three chapters report on recent studies and surveys as they relate to students from low-income families. Chapter 3 is an analysis of data derived from a pilot survey of staffing patterns in the elementary and secondary schools which was conducted by the National Center for Educational Statistics. Chapter 4 examines some of the problems in educating Mexican-American children. Chapter 5 delineates the role of 2-year colleges in serving low-income students. The final chapter is a projection of the needs for educational personnel in vocational and technical education with particular emphasis given to the personnel who serve the economically disadvantaged. Appendixes contain a description of EPDA activities (1969 and 1970) and an explanatory note on the supply of and demand for educational personnel. (Author/JS)

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THE EDUCATION PROFESSIONS

An annual report on the people who serve our schools and colleges—1969–70—as required by the Education Professions Development Act

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EDUCATION & WELFARE
OFFICE OF EDUCATION
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Preface

The Education Professions Development Act requires the Commissioner of Education to publish annually a report on the state of the education professions and to indicate his plans for allocating funds authorized by the act. Two reports have thus far been issued, the first in January of 1969, which was a summary of a comprehensive report issued a year later. The comprehensive report describes "the state of the art" among the education professions, from early childhood education through graduate education and including vocational and adult education. The report identifies some of the important trends in education and attempts to indicate the implications which these trends will have for the education professions in the future.

This report faces the same difficult problem which the first reports faced—the lack of adequate, national data on educational personnel. Plans have been made and funds have been requested of the Congress to meet this problem. With each year we hope to develop more sophisticated manpower data which are so badly needed in making educational decisions.

Unlike the first, this report is not a comprehensive treatment of the broad needs and problems in education. There are innumerable issues facing us in recruiting, training, retraining, and deploying educational personnel in our schools and colleges. We cannot hope to collect and analyze information each year on all of them. In any case, reports with a more limited focus are useful in that they delve more deeply into vital matters of current concern to the education community. In this report, therefore, we take a hard look at the problem of educating students from low-income families and attempt to sharpen understanding of the issues involved.

In future reports, we plan to tackle similar limited problems. However, we recommend that every 5 years the Commissioner issue a comprehensive report on the education professions at all levels. Such 5-year reports would rely heavily on the resources of the State educational agencies, other government agencies, and institutions of higher education. They would serve largely as reference documents which attempt to identify the most important needs for educational personnel and to project future requirements.

This report covers two fiscal years—1969 and 1970. Since limitations in staff resources and other demands prevented us from issuing the first report until late in 1969, we are therefore having this report serve a 2-year period.

This is not an attempt to encompass all the concerns in the education of low-income students. These particular chapters were designed, first, because of the intense concern with these particular problems, and, second, because surveys had been conducted which bear on them and, therefore, provide us with new data.

Chapter 1 focuses on teaching low-income students and defines some of the major issues in educating these children in inner-city schools. Chapter 2 sets forth the Commissioner's plans to allocate funds authorized by the Education Professions Development Act, most of which are directed to serving the needs of low-income children. The next three chapters report on recent studies and surveys as they relate to students from low-income families. Chapter 3 is an analysis of data derived from a pilot survey of staffing patterns in the elementary and secondary schools which was conducted by the National Center for Educational Statistics. Chapter 4 examines some of the problems in educating Mexican-American children. Chapter 5 delineates the role of 2-year colleges in serving low-income students. The final chapter is a projection of the needs for educational personnel in vocational and technical education, with particular emphasis given to the personnel who serve the economically disadvantaged.

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This report was prepared under the direction of the Division of Assessment and Coordination of the Bureau of Educational Personnel Development. In developing these annual assessment reports, the Division relies heavily on the cooperation of the National Center for Educational Statistics (NCES). Chapter 3 is based on the pilot phase of a staffing survey of elementary and secondary schools which the NCES is now conducting. The NCES also prepared the statement on supply of and demand for teachers which is largely based on data developed by the National Education Association and on the OE staffing survey.

Acknowledgment is also made to the Civil Rights Commission, which provided data from a survey on the education of Mexican-Americans. These data are included in Chapter 4, "Staffing of Schools Serving Mexican-Americans."

The advice and assistance of individuals and organizations outside the Office to whom acknowledgment should be made include the following:

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The appendix includes a summary of EPDA activities supported in fiscal years 1969 and 1970 which brings up to date those reported in the 1968 report. In addition, there is a statement included in appendix B on the problem of supply of and demand for educational personnel.

DON DAVIES
Associate Commissioner for
Educational Personnel Development

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CHAPTER 1

Teachers in Poverty Schools: Aftermath of Failure

Any realistic assessment of education for children of low-income families in the United States must begin with an overdue acknowledgement of failure by the schools. Since the war on poverty first focused attention on the poor child, the articulate apologists in education have been directing the spotlight of blame everywhere but where it belongs. The schools, it was argued, cannot overcome the cumulative impact of abysmal living conditions, shattered family life, or lack of cultural reinforcement. These are the causes, supposedly, of reading failure, high dropout rates, and violence. Today, these theories can most charitably be described as institutional rationalizations for failure. For educators who are involved with the poor child know that the real reason that school has become a trap for so many children stems from the inability of a rigid, essentially middle-class system to meet the needs of this alienated group.

The failure is all pervasive. Teaching is geared to middle-class children despite the socioeconomic level of a school population. Change affecting the classroom takes years to implement because of inflexible operating procedures. Curriculum materials are irrelevant to the life of the poor child. Parents are alienated, for they are aware that the system is cheating their children. The cultural resources of the community are ignored in the educative process. If and when the desperate need for flexibility is finally realized, inadequate financing impedes innovation.

The Impact of the Teacher

Despite the persistent defeatism of those who deny that the schools can overcome the environmental problems of the poor, there is a growing body of evidence that teachers can and do make a difference in helping the hard-core poverty child to fulfill his potentials in the classroom. The basic truth that the teacher can make school meaningful and important to the poverty child has been known to educators for years. The "helplessness" of the school has become a cliché, one of many false labels and misconceptions surrounding education in the inner city.

Research studies reviewed in the new U.S. Office of Education report *Do Teachers Make A Difference?* indicate that the verbal ability of teachers has a direct impact on pupil achievement. Fifteen of 19 studies on school components referred to in that report indicated various teacher characteristics which have an impact on different aspects of student achievement. Studies by the U.S. Commission on Civil Rights conducted in 1967 revealed that in schools with a large percentage of poor black students, there was a significant increase in achievement levels when these students had teachers who rated high on a teacher quality index formulated by the Commission. The index included, in addition to teaching experience, the teacher's desire to continue teaching in his present school. And recently, Dr. James Coleman said that new studies have led him to conclude that "variations in teachers" characteristics account for more variation in children's standardized performance in cognitive skills than do variations in any other characteristics of the school." Dr. Coleman was chief author of the 1966 study *Equality of Educational Opportunity,* which claimed that social environment was the most significant factor affecting student achievement.

This chapter, while concerned with all aspects of education for the poor child, will focus on the teacher who is demonstrably the most crucial element in the interlocking maze of people, theories, practices, and institutions that constitutes schooling for the poverty-stricken. In this chapter use of the term "disadvantaged" will be avoided primarily because it has been recognized as being far too broad to really be useful. Children from middle-class families can be culturally impoverished and in the truest sense "disadvantaged," because of gaps in their background, home environment, and early education. They too may be incapable of achieving in the average school. On the other hand, an urban child from a lower-class background may nevertheless have enough "advantages" to enable him to succeed in the school system. The children spotlighted here are those who live with persistent and debilitating poverty in urban areas—and constitute the largest segment of America's poor young people. It is in the hard-core poverty of the inner city, where the worst problems exist and where the best prospects for change can be found. The problems of rural poverty will be examined in another report.

The picture of education in the inner city is one of despair and hope, of horrendous shortcomings and promising beginnings. For the task of teaching the children of the poor is as complex and varied as are the children themselves, requiring creativity and imagination that has only just begun to emerge in the educational establishment.

According to the President's Commission on Income Maintenance Programs, poverty has been reduced from 22 percent of the population in 1959 to 13 percent in 1968. But that 13 percent represents about 30 million people. Of this number, nearly 13 million are under 18 years of age; 68.3 percent are white and 31.7 percent are nonwhite; 37.3 percent live in rural areas and 62.7 percent or more than 8 million live in urban areas. It has been estimated that, of the 50 million children in elementary and secondary schools, approximately 9 million are in the poverty category. Current estimates also state that in 1970 one out of three children in the Nation's 14 largest cities comes from a poverty family. Of the approximately 2 million public school teachers in the Nation, about 350,000 primarily teach these children.

What are hard-core urban poor children like? In "To Make a Difference: Teaching in the Inner City," Larry Cuban, Director of the Office of Staff Development in the Washington, D.C., public schools, offers one of the most realistic summaries.

They are:

> youngsters from low income families. They come to school with a broad range of intelligence, aspirations, skill development and behavior. They happen to be victimized, unfortunately, by poverty and racism. . . . Take any street in a ghetto and you will find a broad mix of people sharing the same values as the readers of this book. Stable and unstable marriages are there, two parent homes and broken families, law abiding and criminal behavior, advanced education and illiteracy, the hopeful and the hopeless. . . .

The President's Commission on Income Maintenance Programs put it another way:

> . . . In the end the diversity of the poor overwhelms any simple attempt to describe them with statistics. What may be said simply is that millions of our fellow citizens are living in severe poverty, with few prospects for a better life, and often with little hope for the future.

While the poor have been surveyed, resurveyed, and analyzed, there are no major studies available providing basic data on this special group of classroom teachers serving low-income children. However, some conclusions may be drawn from a variety of sources ranging from Coleman's *Equality of Educational Opportunity* to other special studies by the U.S. Office of Education.

The majority of these teachers are young, inexperienced, and often poorly prepared for the "culture shock" of entering a classroom of poor children. Approximately 40 percent would prefer to be in a school other than the one in which they are teaching; more than 20 percent prefer teaching white pupils rather than minority group students.

While individual cities, such as Chicago, Milwaukee, and Boston have periodically reported a high rate of teacher turnover in their poverty area schools, a special survey by the U.S. Office of Education, completed in 1969, showed that regardless of teacher dissatisfaction with assignments, the turnover rate in schools with a poverty population of more than 50 percent was not significantly greater than in those with a majority of middle-class students. The study, involving 129 large cities containing 20 percent of the total school enrollment, did show, however, that the percentage of new teachers who were inexperienced was at least 10 percent higher in poverty schools than in nonpoverty schools.

But just as it is misleading to categorize poverty students, it is equally dangerous to draw too many generalizations about teachers of the poor. It is true that there are fewer experienced teachers in poverty schools. But in "Death at an Early Age," Jonathan Kozol tells of "experienced" teachers in Boston who insisted on using a rattan cane on the hands of children. And while horrifying stories are continually told of the difficulties of teaching in New York City, where in 1968 college graduates were given 2 months of crash training and shoved into the classroom to alleviate a crushing teacher shortage, there is today a waiting list for teaching positions! One reason is that New York City teachers have the highest pay scale in the Nation; beginning teachers earn $8,450.

But one basic generalization can be made. More and more, the teachers of the poor are crying out that they cannot teach their students, that they do not need dropout statistics or low reading scores to tell them that the schools are failing poor students. The evidence is everywhere. It can be found in the matter-of-fact account of one teacher who turned his experiences into an incisive book—and in the dry recital of common problems reported by teachers in both inner-city and rural poverty areas.

> Springtime at G.W. was the time for riots. . . . Fights. Fires. Broken windows. Food thrown all over. Neighborhood complaints about vandalism. Teachers who had kept things in check all year began to have their troubles. We began to hear about So and So who was threatened by a group of kids, someone else who was swung on by a student, another who hit some kid. . . . Riots began to take place in the rooms—books torn up and papers thrown around, desks overturned and placed out in the halls, the helpless teacher calling for assistance. . . .

This was no fictional blackboard jungle but a ghetto junior high school described by James Herndon in *The Way It Spozed to Be*, a book based on his first year of teaching.

Amplifying the staggering problems is a 1968 study conducted by the University of Tennessee with U.S. Office of Education support. The study presented significant problems commonly reported by more than 350 teachers in rural poverty areas and 280 teachers in inner-city poverty areas. The list included: helping a child who comes from a disrupted or broken home; knowing what to do about children who have been mistreated at home; helping children who do not have adequate clothing; helping children to work independently; finding satisfactory methods of disciplining children; and dealing with classroom disruptions of the normal schedule.

The teacher tries to cope with violence; he tries to maintain order and discipline—but what about learning? What about motivating the potential of every child in the classroom? How does the teacher get caught in the trap of spending most of his teaching time trying to maintain order while having to spew out facts and concepts according to the prescribed curriculum, thereby guaranteeing the alienation of his students?

Reasons vary, from institutional rigor mortis to unconscious prejudice, but the cause that teachers and administrators constantly put forward is inadequate and unrealistic teacher training. They have found that much of the teacher training now given leaves beginning teachers with false, rigid values, a lack of a repertoire of effective instructional skills, an inability to change methods and curriculum materials to meet the needs of poverty children, and an insensitivity to these children as individuals.

In "Teachers for the Real World," a special study prepared for the Task Force of the NDEA National Institute for Advanced Study in Teaching Disadvantaged Youth (published by the American Association of Colleges for Teacher Education, 1969), there is a perceptive discussion of the problems of beginning teachers by experienced teacher-educators:

> There are apparently three main deficiencies in the training of teachers who are reluctant to teach in the disadvantaged areas and who drop out. First of all, teachers know almost nothing about the background of disadvantaged pupils and the communities where they live. . . . Teachers fail be-

> cause they have not been trained calmly to analyze new situations against a firm background of relevant theory. . . . Teachers often appear to have no interest in children or even to fear them because they simply lack the conceptual equipment to understand them. . . . A third area in which teachers lack sufficient preparation is in the skills needed to perform effectively in the classroom. . . . The student teaching program, at its best, fails to develop the skills of teaching. . . .

When a new teacher enters the system, continued failure is almost guaranteed. He faces a series of obstacles: lack of relevant inservice training concerning everyday classroom learning problems, reluctance of administrators to provide necessary guidance and supportive services, textbooks and curriculum materials inadequate in supply and irrelevant to the needs of low-income children, in many cases, dreary, rundown physical facilities that silently shout what the system thinks of the children in poverty-area schools.

A 1968 survey by the Southwest Educational Development Laboratory in Austin, Texas, which covered 35 Texas schools and eight Louisiana schools with large numbers of underprivileged children, showed that 41 percent of the teachers in those schools had never attended any inservice course or professional conference dealing with poor children. A companion survey of 43 Texas and Louisiana colleges that turned out 65 percent of all the teacher education graduates in the area disclosed that 91 percent of the colleges had no program specifically designed to prepare teachers of children of low-income families.

In the following excerpt from an NDEA Institute seminar, a young teacher expresses her feelings after her first assignment in a poor Atlanta area:

> My feeling for the educational needs of these children, for their emotional adjustment, is very strong, but knowledge falls short of enabling me to cope with both of these areas. I began to question myself as I realized just how little I knew about what I was doing. My answers led me to judge that the confusion which I face is not entirely my fault. Why didn't someone give me reason to study urban sociology? How many colleges know where their student teachers will be assigned after graduation? . . .

It seems clear that we know more about teaching the low-income child than we are applying. Furthermore, much of the new information and methods are not reaching teachers in preparation or those already in the classroom. Not only is course content for training teachers often irrelevant, but most teachers are not being prepared through the use of new techniques, such as behavior modification through feedback (e.g., microteaching). In addition, there is insufficient use of practicum experiences to help future teachers learn to deal effectively with their own and their pupils' attitudes, emotions, and cultural backgrounds.

A major problem is the dearth of information available on the current state of preservice training for teachers of the poor. One survey of such programs was undertaken by John Egerton for *Southern Education Report* in 1967. He found that of 218 institutions in 17 Southern and Border States, 58 percent had, in the previous 6 years made no program changes at all to train teachers for low-income students. At the same time, in 79 percent of the institutions staff members felt that the attention given the poor was a long overdue recognition of a fundamental weakness in American education.*

If complaints about preservice education focus on the lack of practical preparation for the classroom, criticism of inservice education narrows down, in many cases, to the lack of practical implementation of the skills supposedly acquired in the intensive, short-term courses that characterize much of this training. There is little specific research available to document the failure of inservice education. However, it is widely accepted among teachers and administrators that there is no way really to find out what specific changes, if any, occur within a classroom after a teacher has undergone special inservice training on the problems of the low-income child. It is also well known that a teacher can often be sensitive and enthusiastic during training, especially if such training means inservice credits that will add to his salary, and he can then return to his classroom with all his attitudes and mistakes intact.

One rare case in which a followup study was made on inservice training indicates that positive and significant change cannot always be

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*From "Survey of Teacher Education," *Southern Education Report*, April 1967.

equated with such training. In 1966, 150 New York teachers underwent an intensive course in new methods for dealing with low-income children in the classroom and in techniques for enlisting the aid of the parents of these children as a means of effecting educational change. Six months after the program was completed, interviewers surveyed a majority of the participants with this result: "The general conclusion . . . was that once the teachers and other educational personnel returned to their regular classrooms or offices, many, if not all of the plans . . . were forgotten under the press of events. The number of changes carried over into the regular year by both teachers and nonclassroom personnel was slight. In not one case was the second major objective of the program—contact and understanding of parents—remembered. . . ."

Wilkerson's statement is an accurate description of the state of teacher training programs for teachers of low-income children today. While no exact figures are available, it can be reasonably estimated that there are more than 150 institutions throughout the country with special programs for teachers of these children now in progress. Descriptions of a number of these programs are detailed and voluminous, but evaluations of their effectiveness are few and sketchy. One reason for the lack of meaningful evaluation is that most of the programs that have been conducted with any degree of continuity have been in existence only for about 3 years—too short a time to determine their impact on children. However, through study of many of the programs, interviews with administrators involved, analysis of existing evaluations, and a consensus of expert opinion in the field, a number of conclusions concerning teacher education in this area and criteria for successful programs have been formulated. Among the conclusions are the following:

(1) It can be reasonably assumed, even in the face of little specific research data, that the training and skills necessary for teaching the poor are identical to the training and skills that should be given to every teacher—since ideally every teacher should have sufficient training to teach *all* types of children, not just the well-motivated middle-class students. It would be incredibly naive, however, to assume that all teachers are capable of teaching poor children. Special interest and strengths are needed, and care must be taken to recruit prospective teachers who have these strengths or who can reasonably be expected to develop them during their student teaching. The difference in training teachers for the poor, a difference that focuses on sensitivity in recruiting, may seem small in contrast to the overall problems of developing a teacher education program. However, this difference can be all-important in determining training success. The personal strengths for teaching low-income children include an extra measure of physical stamina, a firm set of values that can be sustained in difficult situations, an above-average ability to project interest and enthusiasm in a subject, a high degree of objectivity, an enthusiasm for experimentation, an outstanding ability to individualize classroom instruction, an acceptance of diversity among people and their values, and a clear understanding of children's different home backgrounds.

(2) Crucial to any realistic appraisal of a preservice training program, even if those in charge are secure in the feeling that most of their student teachers have these attributes, is the acknowledgment that failure and frustration will always be present. There will still be schools that cannot be changed; there will still be systems that will operate inflexibly; there will still be social situations that will defeat a teacher; there will still be children who will never be reached. Any system of educational reform in such an early stage of development must admit this harsh reality. It is only part of the price of decades of neglect.

The following are criteria for programs to train teachers for low-income children:

(1) Special and sensitive recruiting of candidates to insure that the majority of those trained will go into teaching and stay in poverty-area schools.

(2) Emphasis on recruiting low-income persons whose backgrounds can be a special asset in poverty-area schools.

(3) Procedures to redirect unqualified persons to other areas.

(4) A minimum of a full semester of training in a poverty school, with careful supervision of experienced teachers who have the time to devote to supervision and are compensated for it.

(5) Training oriented to knowledge of the "whole child," his home, his street, his family, his culture, and his life style.

(6) Training that is individualized to take into account differences among those being prepared.

(7) Inclusion in program staff of "clinical" professors who hold joint appointments in the school system and the colleges. These professors teach regularly in local schools as well as in the universities.

(8) Institutional preparation to achieve: mastery of subject matter in specific areas; understanding of basic learning theories; competence in diagnostic and teaching skills; knowledge to cope with classroom situations involving the low-income child; knowledge of the behavioral sciences and their application to the cultures of the economically disadvantaged; ability to work affectively with parents and others in the community; knowledge of material and subject areas with which the underprivileged can identify (e.g., history of minorities in America); familiarity with the culture of the community in which teaching will take place; understanding of the language of the poor child and his special verbal skill; and the ability to bring about increased awareness and acceptance of more conventional language patterns without patronizing the child or exhibiting unconscious prejudice.

(9) Involvement of all parts of the college or university in the teacher preparation programs.

(10) Involvement of the college, school system, student-teachers, and the community in the planning of the teacher training program.

(11) Selection of schools for student teaching which are administered in such a way as to permit maximum flexibility in organization and individualized teaching and which have available a wide variety of curriculum materials.

It should be noted that dealing with the speech of the inner-city child, and with the language problems of those children for whom English is a second language, is one of the most complex situations the teacher may face. Too many teachers still enter the classroom with the assumption that only middle-class patterns of speech are "right" and that the commonly used terms of the inner-city neighborhood and culture are wrong. The teacher's goals for language development are likely to be frustrated so long as there is a lack of *mutual* acceptance of the correctness of *both* types of speech under *varying* conditions. The bilingual problem will continue to be serious until training institutions make concerted attempt to recruit teachers for the inner city who can communicate with minority groups. In addition, they must provide basic language courses for more teachers who will enter schools in bilingual areas.

These are obviously ideal criteria for preservice programs; probably no program in the Nation has successfully incorporated all of these elements. But there are programs that have made outstanding attempts to bring together many of the elements necessary for a realistic, practical preparation for teachers of the economically disadvantaged.

Current Training Programs

Since 1967, the Cooperative Urban Teacher Education Program (CUTE) has been operated by the Mid-Continent Regional Educational Laboratory in Kansas City, Missouri, in cooperation with more than 40 institutions of higher education and the public school systems of Kansas City, Kansas, and Kansas City, Missouri. This cooperative program, open to college seniors, involves a semester of work divided into 16 weeks of field experience and courses in education, urban sociology, and mental health. The field experience includes visits to homes in deprived urban communities; conferences with a wide variety of officials from agencies concerned with the problems of the urban poor; and contact with low-income children not only through classroom observation, but also through working with them in playgrounds, tutorial programs, and community centered activities. The field experience also includes an extended period of full-day student teaching in an inner-city school under the supervision of an experienced teacher and a staff member of CUTE. Throughout the program, there has been constant, intense emphasis on giving the teachers realistic, practical answers to day-to-day teaching problems, on providing as much background and knowledge as possible of the problems and culture of inner-city children, and on encouraging self-study and analysis so that the student teacher knows the reasons for his reactions, his successes and failures. There has been constant contact and feedback among the staff of CUTE, the supervising teachers in the public schools, and the professional teacher trainers in the cooperating colleges and universities.

In the latest followup report on this program, 35 of 40 CUTE graduates had teaching contracts for the 1968–69 school year, with 31 planning to teach in inner-city schools. Three others were in suburban or small town schools, while one was in a rural poverty school.

Fordham University in New York City has a three-phase preparation program based on the assumption that training a new teacher should not end with his certification but must continue during his first year on the job. In the first phase of the program, students serve as school aides and assistants in social work agencies. The stress is understanding the physical, psychological, and social factors which affect the development of urban youth. Guest lecturers for the classroom portion of this training include scholars from other disciplines, panels of school children, and beginning teachers in inner-city schools. In the second phase of the program, the students are assigned as paid assistant teachers in inner-city schools for approximately 4 hours a day, 5 days a week for an entire school year. Coursework during this period places heavy emphasis on psychology and methods of teaching. Assistant teachers are videotaped in the inner-city classrooms and the videotapes are played back when the teacher returns to campus for evaluation. In the third phase, after students have been certified and hold full-time appointments as beginning teachers, they work with university instructors throughout the first year. This program has been in operation since 1967, and although reports from participants are enthusiastic and encouraging, there are no hard data available as yet on the retention rate of its graduates and the impact these teachers have had on low-income students.

A slightly different type of program, operated by the Syracuse University School of Education, combines a year of graduate study leading to a master's degree with a paid internship experience in laboratory schools in Syracuse's inner city. Called the Urban Teacher Preparation Program, it includes a 6-week summer session during which interns observe children in a demonstration school and then teach under the guidance of experienced master teachers. Afternoons in the summer sessions are devoted primarily to seminars on methods of lesson planning, classroom management, planning curriculum units, lesson presentation, and the sociological and psychological backgrounds of deprived students. During the regular school year, each intern becomes an appointed teacher in the Syracuse system, teaching a half day for the entire school year and spending afternoons in seminars and courses stressing practical solutions and insights into problems faced every day in the inner-city classroom. A key feature of this program is that one supervising teacher, picked for his success and experience in the system's poverty schools, is available to work closely with every eight interns.

According to Dr. Ernest Milner, director of the program since its inception in 1964, a great deal of care is taken to carefully screen the applicants for the training, which places stress not only on attitudes but on effective performance in the classroom. At first, applicants were sought who had a sensitive attitude toward the problems of the economically disadvantaged child, but evaluation during intern teaching showed, according to Milner, "that such sensitive individuals too often lacked the ability to establish the necessary classroom structure and control. Now, during assessment interviews, applicants are involved in role playing situations to determine their reaction to classroom situations they are bound to encounter in the inner-city schools."

No mention of outstanding preservice programs would be complete without a reference to the Teacher Corps. The focus of Teacher Corps programs—of having highly motivated, dedicated interns and team leaders in flexible programs focused on introducing reform into the ways teachers of the poor are trained and used —has had a significant impact on universities, schools, and their communities. A survey conducted in November 1969 showed that 90 percent of the 38 universities reporting have revised their curriculums and coursework—often to a major degree. These revisions reflected the actual conditions under which children are expected to learn. There had been a major break in the usual academic isolation, with 70 percent reporting faculty members teaching off campus or visiting the schools for the first time. There were many indications of movement towards competency-based certification through increased use of seminars, use of Teacher Corps interns for feedback on course content and instructional methods, and changes in the grading system. Significant, though slower, changes were also reported by 75 school districts, in such areas as the introduction of differentiated staffing, increased use of volunteers and teacher aides, increased inservice training of regular staffs, and the introduction or increased use of cross-age tutoring and bilingual education.

The activities of Teacher Corps interns in the school communities in organizing tutoring programs, storefront schools, and the like, had paid off in rapprochements between community and school, with such evidence as increased attendance at PTA meetings, decreased dropout or absentee rates, and formation of parent tutoring groups. Surveys of the 1,300 interns who have graduated thus far show that they are remaining in education, and particularly in poverty-area schools, at rates well above the national averages. About 86 percent are in teaching, in education, or in social service, and more than 70 percent of those teaching are in poverty-area schools.

The preceding brief review of preservice programs that are considered fairly successful provides some encouraging information. However, it also points out the sad state of awareness and evaluation in this entire area. The programs that appear to be functioning well involve only a relative handful of new teachers. Administrators still obtain much of the evaluation that exists from the graduates of their programs; evaluation that links preservice training to the achievement of underprivileged children has still not been developed. ERIC provides a National Clearinghouse on Teacher Education. Support is required to strengthen the effort to provide and disseminate information on effective preservice programs.

Many of the same shortcomings apply to inservice programs for teachers of the economically disadvantaged. The chief difference between preservice and inservice training is that inservice programs are much more numerous and meaningful. Evaluation of these programs is much more difficult to obtain. Nevertheless, progress is being made in this field.

Inservice programs ideally should have these important characteristics:

(1) Have as their major objective the changing of attitudes of teachers toward their pupils.

(2) Obtain maximum impact by reaching all teachers in a school.

(3) Involve teachers in planning and teaching of these courses.

(4) Include whenever possible demonstration and practice lessons with low-income children.

In Redding, Shasta County, California, 120 teachers and teacher aides working with 300 rural poor children, white, black, and Indian, were involved this past year in a 30-hour training course. The course covered areas ranging from training in pupil life styles to relating skill areas such as reading and mathematics to the needs of the children. Various techniques were used, including feedback from students who were formerly involved in the poverty community to analysis of videotaped teaching sessions. But this was an inservice course with a difference. The children involved were given presession and postsession standardized tests in reading so that some measure of progress, however imperfect, could be made. The test results were not available at the time of this writing.

A new program just being started by the U.S. Office of Education also puts emphasis on evaluation. Called Urban/Rural School Development, the program will provide 5-year grants for training of experienced teachers in selected poverty schools, with emphasis on complete involvement of the school staff in the formulation and operation of the program. In addition, an elected group from the poverty community will have a voice in planning, including budget, staff, organization, and curriculum. Each school selected—and priority will be given to schools with severe needs for improvement of staff and student performance—will be asked to set specific goals for student improvement and teacher performance. If a project falls short of its agreed-upon goals, it will be carefully reviewed and the grant may be terminated.

Other Areas of Need

Obviously, improving education for the poor cannot stop with the training of teachers. The well-trained sensitive teacher will be the first to realize that what is really needed for success is a revolutionary change in the way most poverty-area schools are controlled, staffed, and administered.

One of the first concerns of this sensitive teacher will be to relate education to the reality of the modern multiracial, multiethnic world. He will need a school that not only offers a wide range of ethnic study materials but that also uses them intelligently. These materials, usually concerned with presenting the history and cultural contributions of minority groups, should be considered just as important for white, middle-class children as for black, Puerto Rican, and Mexican-American students. But even though such materials hopefully may contribute to improving racial understanding and the self-images of minority children, the sensitive teacher will know that use of curriculum materials alone cannot achieve these elusive goals. As Lawrence Cuban explains in "To Make a Difference": ". . . one doesn't sell a hammer to repair a watch nor does one invest materials with promises that cannot be delivered. Materials won't produce attitudinal change. Situations inside and outside school, interaction between students and teachers and the public climate of opinion these produce changes. . . . " The introduction and use of ethnic study materials is still a sporadic, and often confused process in many schools, with meaningful change hampered by the lack of teacher training in this area on both the preservice and inservice levels. Hopefully, this situation will improve as the Federal Government, through funding under the Education Professions Development Act, and in other ways encourages the development of realistic training programs.

Perhaps the most serious problem plaguing the poverty school is segregation, which must be considered a key obstacle to making any type of education relevant to reality. Continued segregation can only weaken the fabric of our society. All our children must live in a multiracial world and the school is a natural place in which to introduce them to that world. However, the problem is the one easiest to articulate but most difficult to eliminate. The ultimate responsibility for true integration depends not only on the actions of the Federal Government, but on the educational leaders and people of each State and community.

Inside the poverty school, it may often happen that the sense of accomplishment and of being needed, and all the other oft-heralded joys of dedication, may not be enough to retain a highly creative, adaptable staff. One of the methods that can be used to solve this problem, although highly controversial but still worth consideration, is additional pay. It has been called, euphemistically, incentive pay or premium pay. The angry, beleaguered teacher in the poor neighborhood has also called it "combat pay."

In Portland, Oregon, a premium pay policy provides $1,000 for experienced teachers and $500 for beginning teachers who work with children who receive almost all their motivation and learning from the school. As a result of this additional pay, together with additional auxiliary personnel and learning materials, the schools with lowest achievement in Portland have received so many applications that no request for transfer out of these schools has yet been denied. Many of the teachers who find difficulty teaching in these schools have gradually been replaced. The number of inexperienced teachers in them has been reduced by more than 66 percent. Most who are in their first year of teaching have either had special preparation for working in poverty schools or have expressed a special interest in being assigned to them. Premium pay, it can be argued, is certainly no panacea—but it is clearly worth trying.

There are other more radical proposals for solving fundamental shortcomings of the poverty school. One of the problems is the unresponsiveness of many of these schools to the community, and the fact that education for the poor, as it is presently organized, lacks any real incentive for success. Henry M. Levin of Stanford University described the ironies of inner-city education in a recent *Saturday Review* article on "Why Ghetto Schools Fail." "The basic flaw that characterizes an educational system . . . is that there are no incentives built into the system to satisfy social goals. If students are not learning to read in a particular school, there are no direct incentives to change the situation. Principals and teachers get pay increases on schedule, whether they fail or succeed. . . . The reward structure is systematically divorced from educational effectiveness. . . ."

One method for making the school more responsive to the needs and desires of the community is to give the community a share in control of the system. Decentralization of large city school systems (in which community school districts elect citizen boards of education which establish personnel policies covering selection and dismissal of staff and formulate curriculum goals) is still a much discussed, little implemented concept. The giant New York City school system, in a desperate attempt to make an unwieldy dinosaur of a system more responsive, will launch a decentralized system of 30 districts in the fall of 1970.

Another radical proposal for change is the voucher plan, based on a concept proposed by economist Milton Friedman of the University of Chicago. Under this scheme, schools would have to compete for students through demonstrated effectiveness. The State would provide vouchers for a specified sum each year which parents could use as tuition payments at approved institutions of their choice. Schools could be expected to keep accurate measures of their costs, programs, and student progress since they would be competing for students. There would probably be an increase in the number of nonpublic schools. Those public schools that survive this type of competition would probably be the ones that are more effective in terms of concrete student achievement. A multimillion dollar experiment in using vouchers will be sponsored in 1970–71 by the Office of Economic Opportunity. This experiment will seek to determine the positive and negative effects of the voucher system, including its impact on racial segregation in the schools.

The voucher plan, dramatic and different, will elicit predictions of chaos from defenders of the status quo. But it certainly deserves additional investigation before being summarily rejected. Any innovation in poverty schools, even those that have been actually put into operation, has offended those whose attitudes and convictions are against meaningful change. But here and there across the country, there have been changes that have gone beyond the proposal stage, changes that have made a difference in the lives of children.

In New York City, the More Effective Schools Program, (MES) which limits class size to 22, provides floating teachers to work with problem children, special guidance counselors, psychologists, and community coordinators to maintain contact with parents. There have been noticeable gains in teacher morale and student achievement in the 21 MES schools. Turnover has been relatively low, and student progress in reading and arithmetic achievement has been encouraging despite some early, negative evaluations.

In the World of Inquiry School in Rochester, New York, where team teaching, learning-by-discovery, and ungraded techniques are utilized, the program has been successful enough to attract students from the suburbs to an inner-city school in a poverty neighborhood.

School districts are capitalizing on the educational benefits obtainable by using sensitive teacher aides from the community in the classrooms of the economically disadvantaged. The federally funded Career Opportunities Program (COP) is spurring career ladder programs in 130 school districts. Community people are recruited into aide positions where they are given remedial, on-the-job, and college level training to enable them to qualify for regular teaching positions through systematic progress up the career ladder. Special efforts are made to recruit returning Vietnam veterans into the program. The COP program has already produced innovations in Minneapolis including training workshops attended by both teachers and their aides, and involvement of aides from ghetto areas in planning courses at the University of Minnesota. A COP program at Delaware State College in Wilmington will waive the high school diploma as a college entry requirement for strongly motivated trainees, and will allow trainees to obtain a bachelor's degree in 3 years instead of 4.

A promising component of the COP program, operated in conjunction with the U.S. Department of Labor and the Office of Economic Opportunity, is the Youth Tutoring Youth (YTY) project. Planned for 140 locations across the country in 1970, YTY involves 14- and 15-year-old youths in poverty neighborhoods who earn money by helping younger children progress in reading, writing, and other basic skills. In addition, members of the poverty community are involved as supervisors, aides, tutors, and tutees.

One of the most neglected areas, next to the untapped talent of the youth and parents of the poverty community, is training of administrators for the poverty-area schools. Schools of education teach theory of administration, curriculum planning, staff organization, and structure, etc. But administrators are not taught how to cope with an angry teachers' union fighting an enraged community, or how to wage the internecine warfare needed to reduce class sizes in decaying overpopulated schools. They are not prepared to meet the other countless problems, minute and monstrous, that can confront the administrator in a poverty school. And the competence and sensitivity of an administrator, particularly a principal, sets the educational tone of the school. It is the principal who screens his staff and makes arrangements, who can push or retard emphases on various curriculum areas, who can encourage or dissuade teachers who want to innovate, who determines whether a school will be flexible or rigid.

There is now only a small awakening to the need for revitalizing training for administrators. The American Association of School Administrators has launched an academy for its members that conducts inservice courses around the country. The focus of this program is on bringing practical assistance to working administrators who were never trained to deal with the complex, overwhelming problems they now face. Fordham University has put into operation a full-time program for the training of principals and assistant principals that includes field training and courses focusing on the values of the poverty community and participation in community meetings and projects.

Change is also beginning to emerge in several much talked about but usually neglected curriculum areas which also involve training of personnel. One of the most dramatic efforts is the Right to Read Program of the U.S. Office of Education. Organized with the goal of assuring that by the end of the decade "no one leaves the schools without the skill and desire to read to the full limits of his capability," the program seeks to provide additional resources for the improved teaching of reading, while at the same time identifying and improving existing resources. It is envisioned as a combined Federal, State, and local campaign, with three major components. *Reading progress activities* will be aimed at developing criteria for assessing instructional systems, testing existing programs, and aiding in implementation of effective reading programs at the local level. *Information and coordination* activities will focus on keeping the public aware of the program's progress while at the same time informing the education profession about effective programs and materials. *Special studies activities* will concentrate on research efforts to improve the ability of teachers to provide reading instruction. A National Reading Council has been appointed to lead the entire effort, and a Right to Read office has already been established in ths U. S. Office of Education. Hopefully, this type of national effort, if properly funded and coordinated, will make a major inroad into one of the key teaching failures of the school.

Another failure that has yet to be brought into the full spotlight of national scrutiny is vocational education. This type of training has long been considered a "poor relation" of the education establishment, even though it holds great promise for meeting the needs of the poor student. Past legislation tended to encourage the rejection of students with low levels of motivation and poor preparation, even though vocational education can potentially cope well with such problems. In the 1968 Vocational Education Amendments, Congress indicated its clear intent that top priority go to those from low-income families who have special educational needs. Instead of being permissive the new law requires that at least 15 percent of the basic Federal Government allotment be used only for those persons.

The challenge to vocational education is to identify the special needs and develop the unused talent of this group. The key to meeting this challenge is a massive professional development program for all personnel concerned, including decisionmakers such as school superintendents, principals, and community-junior college administrators as well as the all-important teacher.

The Education Professions Development Act gives special attention to developng an understanding of, and a commitment to meet, the needs of the economically disadvantaged. In addition, over 15 percent of the 1970 allocation of funds for the development of vocational educational personnel will give special attention to developing expertise in working with the handicapped. Some specific examples of projects funded that will have a major impact on meeting the needs of the economically disadvantaged:

> The District of Columbia school system, including the Washington Technical Institute, is launching the first phase of a 5-year plan to establish an inservice and preservice teacher education program for vocational and industrial arts personnel. This will ultimately provide for a baccalaureate degree for those desiring such a program. A summer work program during 1970 will have special implications for meeting the needs of the low-income student. Extensive arrangements have been made to link funds from various sources in order to institute this program.
>
> Another interesting and successful program is the FEAST (Food, Education, and Service Technology) which prepares students for commercial food and hospitality occupations. Though enrolling students of all ability levels, it has been especially effective and appropriate for those of less than average verbal ability. The disciplines drawn upon are home economics, science, English, and mathematics—on a team teaching pattern. This program, which has a demonstrated success record of several years in the Oakland-San Francisco Bay area, has been expanded throughout the Western States through the use of EPDA funds.

The 1968 Vocational Educational Amendments provide for the special funding of pilot programs in all States to "familiarized elementary and secondary students with the broad range of career opportunities." This need is especially critical for economically disadvantaged students. EPDA funds have been used to implement these projects in several States with special attention given to the training of the professional personnel concerned.

These are just a few of the worthwhile, hopeful beginnings that are being made. There are, of course, literally hundreds of other special educational programs to aid the poor that have been considered successful after evaluation. There are many more that have not made a measurable difference and others that are yet to be evaluated. The impact of teacher aides on education for the economically disadvantaged just begun to be felt in many schools, and the reorientation of administrators to the special problems of low-income children, is a relatively untouched field.

What exists now, what has been mentioned very briefly in this chapter, is only a small start. Ultimately, a revolution is needed within the schools and the teacher training institutions. But in the meantime, additional steps must be taken at the Federal level to capitalize on present success, and to widen the boundaries of change within the realistic, present limits of funds and facilities. There should not be any limits on commitment and perseverance on State, Federal, or local levels in this effort.

The Federal Government, in cooperation with State educational agencies, should encourage research, new experiments, and techniques for dealing with economically disadvantaged students. The emphasis in these programs, however, should be on performance-oriented evaluation by outside agencies. Once these techniques have been demonstrated to be successful, there should be developed, in cooperation with pertinent professional groups and the States, an efficient system of dissemination to the widest possible audience. Emphasis should be placed on practical "how to do it" techniques. The focus here would be to subject idealistic plans to the cold test of reality, to see if the storefront schools or inner-city work-study programs really have an impact on pupil achievement. Then, data should be disseminated on only those programs that have worked.

There is a shibboleth in education that the time lag between the conception of an idea and utilization of that idea in the classroom has been cut from 50 to 25 years. But the problems of the low-income child, and of his teacher, indicate that even 5 years is too long and too dangerous a period to wait for change.

CHAPTER 2

Educational Personnel Development Priorities

The Education Professions Development Act (EPDA) requires that the Commissioner's annual report on the state of the education professions shall indicate the Commissioner's plans concerning the allocation of Federal assistance under the act. This chapter indicates the priorities and program directions which have been established for fiscal year 1971 (1971–72 academic year).

The Education Professions Development Act of 1967 recognizes the fact that the teacher, the administrator, and the other personnel who serve the schools are central to the effectiveness of the education of our children. The act gives the Commissioner considerable flexibility to meet a broad range of problems by removing the categorical restrictions of previous legislation. He must now identify priorities and allocate resources for them, and he may now do so with far more choices among appropriate strategies.

One of the means for identifying priorities is this annual report. The first report described specific areas of need and it was, in part, on the basis of these findings that the Office of Education priorities for EPDA programs in 1971 have been established.

The funds requested of the Congress in fiscal year 1971 amount to $136.1 million for the elementary and secondary training programs and $12 million for the higher education program authorized under part E. These funds hardly permit a massive attack on the many problems we face in recruiting, training, retraining, and deploying education personnel. But they do offer great promise for leverage in solving some of the more pressing of these problems.

A report on the programs which were developed and administered in the first two years of EPDA (fiscal years 1969 and 1970) is included in appendix A. These activities have helped to refine strategies for meeting these two national needs. The fiscal year 1971 programs described below are the result.

EPDA Programs for Elementary and Secondary School Personnel

EPDA programs have been organized for fiscal year 1971 under four objectives:

(1) *Improving Education in Schools Serving Low-Income Families.*—In the past the focus of teacher training efforts in the Office of Education has been on the recruitment and training of teachers more or less as an end in itself. This focus has been shifted to the pupil who is served by the education personnel being trained, particularly the pupil in low-income schools. This will be done through three programs. *The Career Opportunities Program* and the *Teacher Corps* which will concentrate on recruiting and training people for low-income schools. A new program—the *Urban/Rural School Development Program*—will provide retraining of personnel presently serving in low-income schools. It will do so by concentrating all retraining at certain sites, by developing and implementing retraining strategies for entire schools, and by placing responsibility for retraining in the hands of teachers in the communities served.

(2) *Improving the Preparation of all Educational Personnel.*—All of the programs under EPDA have as at least one of their objectives the reform and improvement of systems that prepare educational personnel. However, two

programs—*The Trainers of Teacher Trainers Program* and *Teacher Training Complexes Program*—are exclusively directed to that objective. The *Trainers of Teacher Trainers Program* (TTT) directly focuses on programs for teacher trainers and trainers of teacher trainers, not only those who are in departments of education, and in academic departments, but all those who influence teacher training, including members of the community and the local education agencies themselves. *The Training Complexes Program* is a separate attack on the problem of improving the training of teachers. It will provide additional resources for training by developing programs on neutral territory where the university and the school can provide preservice and inservice training under new conditions.

(3) *Meeting Critical Qualitative and Quantitative Shortages of Educational Personnel.*—The resources available to EPDA have never been sufficient to meet the overall teacher shortages. Therefore, shortages in the most critical areas have been identified and programs have been designed to prepare and retrain teachers in those areas. They include the *Vocational Educational Program, Special Education Program, Early Childhood Education Program, Personnel Services Staff Program, Educational Leadership Program,* and *Bilingual Education Program.* In addition, the *State Grants Program* authorized by section B–2 of EPDA will continue to provide States with funds to meet critical shortages by recruiting persons from the community not presently engaged in education, providing them with intensive short-term preservice training, and putting them to work in the classroom as soon as possible.

(4) *Meeting Special Needs for Educational Personnel as They Arise and Developing and Testing Solutions for Those Needs.*—The *School Personnel Utilization Program* is designed to create institutional change by reorganizing the teaching and administrative staffs in selected elementary and secondary schools. It is a pilot program designed to demonstrate the effectiveness of the concept of differentiated functions of school personnel, including teachers, administrators, and paraprofessionals.

The *Teacher Development for Desegregating Schools Program* will meet the special needs of educational personnel who serve or will be serving in recently desegregated schools. The primary objectives of the program include improving the subject matter and professional competence of inservice teachers in the language arts, including reading and mathematics, and Afro-American studies; preparing inservice teachers and other educational personnel to serve in cross-cultural and interethnic school and community settings; and enhancing the capacity of institutions to better train teachers, especially those serving in recently desegregated schools.

Training Programs for Higher Education Personnel—Part E, EPDA

In fiscal year 1971, training programs for higher education personnel under part E of EPDA will continue to focus on the following broad national priorities in higher education established in 1968. (1) training junior college personnel; (2) preparation of college personnel to serve the needs of minority and low-income students from educationally deprived backgrounds; (3) training of educational personnel to serve in developing institutions; (4) preservice and inservice training of high-level college administrators; (5) improvement of undergraduate teaching; and (6) training of educational specialists.

It is anticipated that in fiscal year 1971 the appropriation for part E will again be $10 million, with $5 million to be allocated for support of institutes, short-term training projects and special projects, and $5 million for fellowship programs. This level of funding will keep the program at the present operational level by providing fellowship programs in about 75 institutions, supporting slightly more than 900 fellows. In addition, it is estimated that approximately 93 institutes, short-term training projects, and special projects, which will provide training for about 5,000 participants, will be supported in fiscal year 1971.

It is expected that in fiscal year 1971, as in previous years, the largest portion of part E funds will be concentrated on the first three of the six national priorities stated above. These three priorities are considered the most critical national needs in higher education. First, heavy emphasis will be placed in fiscal year 1971 on fellowship programs, institutes, short-term training projects, and special projects to improve the quality of teaching and help meet critical shortages of adequately trained personnel in the community and junior colleges. It is anticipated that in fiscal year 1971 there will be an increase in the number of direct grants to junior colleges for support of institutes, short-term training projects, and special projects to serve their needs.

Further, substantial support will be given to both fellowship- and institute-type projects which are focused on the second national priority—the training of college personnel, including administrators, teachers, counselors, and student financial aid officers, to work with minority and low-income students from educationally deprived backgrounds. Among the specific program areas which will serve the needs of disadvantaged college students are: training in teaching methods suitable for working with disadvantaged students; training in the techniques of remedial reading for incoming college students (an important part of the Right to Read program of the Office of Education); training directed to the needs of particular minority groups such as American Indians, Mexican-Americans, Appalachian whites, and urban blacks; training in ethnic studies (including Afro-American curriculums); training in the administration of cooperative education programs; and training in the causes and issues of student unrest.

A third area of need which will continue to receive close attention in 1971–72 will be the training of personnel who are serving or preparing to serve in developing institutions, including both black colleges and other small, 4-year colleges. This will include efforts to make direct grants to the black colleges for support of fellowship and institute programs to serve their needs. It is also anticipated that a new effort of the part E program in fiscal year 1971 will be support of programs to train college personnel in environmental or ecological education. This is in accord with the increased Federal effort to deal with urgent environmental problems.

CHAPTER 3

A Statistical Portrait of Poverty Schools

This section is an attempt to examine statistics concerning the basic staffing characteristics of poverty schools. The statistics chosen for examination are believed to relate, either directly or indirectly, to the quality of instruction in these schools. Hopefully, this statistical picture will provide some clues about conditions teachers face in these schools and some possible solutions to some of the more serious educational problems, such as training and staff utilization. One of the focal points of the survey is the number of staff assigned and the number of professionals needed in order to give some indication of the actual rather than the suspected shortage of personnel in these schools.

There are great limitations, of course, to any attempt to reduce a crisis to mere numbers. The statistics will not show the school where additional personnel did not make any noticeable difference in the lives of children; the statistics will not show how a sensitive dedicated teacher can break through to poor children and give them a willingness to learn—despite poor physical conditions and lack of educational specialists. In some cases the figures will present a murky, gray picture—everything is not as disastrous or as bad as is generally thought. And in other cases, good staffing patterns and an apparently adequate number of specialists turn out to be insufficient to meet the real needs of children. What does emerge from the charts and explanations is a limited statistical portrait of a snowballing educational crisis in which the success of a dedicated teacher with a group of disadvantaged children still can be counted as the exception, rather than the rule.

This survey is based on detailed questionnaires received in May 1969 from a sample of 712 schools in the 48 contiguous States and the District of Columbia. A poverty school, for the purposes of this study, is a school in which more than 50 percent of the children come from households estimated to be poor by the principals of these schools.* The two categories of "poor" used to determine the number of poverty schools in this survey were "moderately poor" and "economically very poor"—or generally unemployed. At the time of the "School Staffing Survey," in May 1969, unemployment was less than 4 percent of the labor force. Under that circumstance, it seems inappropriate to focus exclusively on the unemployed poor, which probably make up the bulk of those reported as "economically very poor." It is estimated that 22,000 schools located in districts with a total number of 82,900 schools are in this poverty class. This total constituted 27 percent of the Nation's public schools in 1968–1969. We are also talking about 9.3 million children, or 20 percent of the total public school enrollment. Large cities, those with a total population in 1960 of more than 100,000, had one-fifth of all the poverty schools and two-fifths of the national enrollments in poverty schools.

The following is a summary of findings from this survey:

- In schools in large cities generally, the separation rate for teachers has not risen significantly in the 10 years since the last major survey of teacher turnover was completed.

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* Many readers will want to know whether principals are sufficiently expert to report on this subject. There is no simple statistical answer to this question, because the answer depends both upon what principals were asked and how their answers were analyzed. They were asked to estimate the percentages of pupils in their schools who came from families which were: "economically very poor," "moderately poor," "moderately well-off," and "quite well-off or better." Each term was defined by example: "Moderately poor (i.e., periodically unemployed, low skilled jobs, etc.)."

- In the large cities, the separation rate of teachers in poverty schools following the 1968–69 school year compares favorably with the rate of teachers leaving nonpoverty schools.
- In September 1968 there was a slight increase in the number of teachers transferring to nonpoverty schools in the large cities; in addition, a slightly higher percentage of inexperienced teachers entered large city poverty schools than entered nonpoverty schools.
- When principals were asked whether they thought their schools were adequately staffed to meet the needs of their students, those in both poverty and nonpoverty schools in the large cities responded that they were not.
- In terms of specific staff shortages, the survey showed that even though the ratio of *all* students to various types of specialists was smaller in poverty schools than in nonpoverty schools, closer examination reveals that the ratio of students with *severe* learning problems to specialists was actually larger in poverty schools than in nonpoverty schools. This was the case for the ratio of pupils with severe reading problems to numbers of reading specialists, for the ratio of students with severe speech problems to speech teachers (with the exception of large city secondary schools), and for the ratio of mentally retarded children to special teachers for the retarded (again with the exception of large city secondary schools). In general, the poverty schools were shown to have fewer staff members to handle children with special instructional problems than the nonpoverty schools.
- Additional staff shortages were revealed in the specific needs cited by principals. More principals in poverty schools than in nonpoverty schools said they needed kindergarten teachers, student teachers, interns, and librarians. The nonpoverty schools were in need of greater numbers of supervisors of instruction and physical education teachers.
- Other characteristics showed that nationally, poverty schools are less likely to have a parent-teacher organization. In addition, poverty elementary schools in the large cities usually have very large late enrollments (students registering after October 1). This usually is attributed to the high degree of mobility among low-income families. The finding that high pupil mobility is not characteristic of poverty elementary or secondary schools outside large cities casts doubt on this simple "explanation." Nationally, about 20 percent of students enrolled after October 1 in poverty elementary schools; in large cities this figure reached almost one-third. For nonpoverty elementary schools these figures ranged from 7 percent nationally to 11 percent in large cities. Poverty and nonpoverty secondary school pupil mobility rates both hover around 10 percent.

The Character of Poverty Schools

Table 1 confirms some of the widely held assumptions about poverty schools. These schools generally have much larger percentages of minority group pupils than do nonpoverty schools, especially in the large cities, and are also more likely to have larger percentages of minority group teachers.

As mentioned above, poverty schools in the

TABLE 1.—Percent of Schools by Minority-Majority Mix

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Pupils				
Poverty schools				
Less than 10% minority pupils	61	20	10	5
10 to 89% minority pupils	27	31	59	49
90% or more minority pupils	12	49	31	46
Nonpoverty schools				
Less than 10% minority pupils	93	98	82	88
10 to 89% minority pupils	7	2	18	12
90% or more minority pupils	0	0	0	0
Full-time classroom teachers				
Poverty schools				
Less than 10% minority teachers	68	41	41	30
10 to 89% minority teachers	25	45	46	58
90% or more minority teachers	7	14	13	12
Nonpoverty schools				
Less than 10% minority teachers	94	99	92	96
10 to 89% minority teachers	6	1	8	4
90% or more minority teachers	0	0	0	0

Nation generally are less likely to have parent-teacher organizations or similar organizations. When these organizations do exist, they usually involve a smaller proportion of parents than do those in nonpoverty schools. Poor schools nationally are less likely to offer a program of conferences with parents, although this is not the case in large-city schools.

Throughout the Nation, poverty schools generally have lower total enrollments than do nonpoverty schools—360 compared to 490 at the elementary level, and 800 to 1,150 at the secondary level. In the large cities, however, enrollments in poverty and nonpoverty schools are about the same.

It should be noted that the term "enrollment," as used here, is the fall membership reported on or about October 1, 1968, when membership can be generally considered stabilized for the school term. However, some pupils will move from one school area to another during the year, and if the level of mobility is high, then the degree of instructional challenge these students pose to the school will also be high. During the 1968–1969 school year, the number of children enrolling late in poverty elementary schools was equivalent to 20 percent of the fall enrollment of these schools nationally. In nonpoverty elementary schools it was 7 percent. In poverty elementary schools in large cities this proportion was nearly one-third of fall enrollment; in nonpoverty schools, it was only 11 percent. Table 2 presents data on pupil mobility as a percentage of fall membership.

TABLE 2.—Late Enrollees as a Percent of Fall 1968 Enrollment

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	19	8	31	11
Nonpoverty schools	7	6	11	8

It is not difficult to relate the percentage of mobility or late enrollment to the classroom. The time and attention required to help each newly enrolled pupil adjust and catch up is time and attention which the teacher might otherwise give to covering the curriculum more fully and in greater depth. While one teacher may teach the same 25 students all year long, another may have to teach 15 for the entire year, plus 10 for the first half-year and 10 different students for the second half-year. Each teacher with a changing classroom population will have had to face many more problems of pupil adjustment. It is misleading, then, to think that because enrollments are low in poverty schools, there is an accompanying reduction of problems. Enrollment figures tell only a small part of the story.

Obviously, a major factor in the quantity and quality of classroom instruction is the total number of pupils for which a teacher is responsible. However, these figures also can be misleading. Table 3 shows that the pupil-teacher ratio for poverty schools (especially elementary schools) is smaller, on the average, than the ratio for nonpoverty schools. The enrollment estimate used to calculate these ratios, however, is fall membership. The ratios change drastically if one substitutes total membership during the school year, which takes in the mobility factor, for fall membership. The ratio of pupils per teacher in large-city poverty elementary schools, for example, rises from 22 to 29 when this change is made, while in counterpart nonpoverty schools the figures go from 31 to 34.

TABLE 3.—Ratio of Enrollments to Full-Time Equivalence of Classroom Teachers

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	23	22	22	22
Nonpoverty schools	29	23	31	25

Since children in poverty schools have a larger number of learning problems, these schools require a greater number of special teachers. As reading is a key problem area, it can logically be expected that poverty schools have more remedial reading teachers than do nonpoverty schools. Table 4 shows the number of pupils per full-time equivalent remedial reading teacher. It appears that poverty schools do, indeed, have a lower pupil-teacher ratio for remedial reading. An examination of the numerical relation of reading specialists to the total number of teachers shows that a greater proportion of the entire teaching staff is devoted to remedial reading in poverty schools. These comparisons are shown in table 5.

TABLE 4.—Pupils per Full-time Equivalence Remedial Reading Teacher

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	861	904	822	602
Nonpoverty schools	1,686	2,415	2,945	2,524

TABLE 5.—Number of Remedial Reading Teachers Per 100 Classroom Teachers

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	2.9	3.6	4.2	2.4
Nonpoverty schools	0.7	1.0	1.6	1.0

Thus it would seem that the staffing of poverty schools is superior in regard to remedial reading. But a real assessment depends not on the total number of students in these schools, but the number of students with remedial reading problems. Principals were asked to estimate the number of students with severe reading problems in their schools.* With this information, table 6 shows the ratio of the number of students reported to have severe reading problems to the number of reading teachers. This table shows that the distribution of remedial reading teachers in terms of the needs of pupils is less favorable in poverty schools, with the important exception of large-city elementary schools. The number of children with reading problems in poverty schools is large enough to eliminate much of the impressive statistical image projected in earlier tables.

TABLE 6.—Pupils with Severe Reading Problems per Remedial Reading Teacher

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	201	377	289	255
Nonpoverty schools	142	207	441	150

Another type of instructional problem, speech impairment, is not considered to be very serious for the general school population.* There are about 12,000 persons employed by the public schools to provide specialized attention for these students. Their services, in full-time equivalents, are available to pupils as shown in table 7. This table indicates that there are greater numbers of speech therapists in schools serving poor children. But when a comparison is made using the estimated number of students with speech impairments as shown in table 8, this positive statistical picture changes.

TABLE 7.—Ratios of Enrollment to Full-time Equivalence of Speech Therapists

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	2,408	29,134	2,163	19,815
Nonpoverty schools	1,628	42,465	3,634	97,351

TABLE 8.—Ratios of Speech Impaired Pupils to Full-time Equivalence of Speech Therapists

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	159	623	169	246
Nonpoverty schools	107	203	138	437

With the exception of secondary schools in large cities, the poverty schools are in an inferior position when it comes to number of students for each speech specialist.

The same change can be seen in examining the staffing for mentally retarded children, excluding those children in private or specialized public schools. There are about 45,000 professionals employed to teach these children and their services were available to students in the ratios shown in table 9. But when the number of mentally retarded students is substituted for total enrollment, then the ratios in table 10 tell the story. Poverty schools, with the exception of large-city elementary schools, once again appear to be disadvantaged when compared with nonpoverty schools.

The overall impact of these staffing comparisons shows that while poverty schools receive more special staff for each pupil enrolled, they are receiving less staff in relation to the numbers of pupils with actual need.

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* The definition of pupils with a reading problem provided to the respondents to the School Staffing Survey was: "Pupils with a reading problem are pupils (not mentally retarded) whose reading performance is sufficiently below grade level to require specialized attention if these pupils are to catch up and keep up with the normal pace of reading instruction for pupils in their grade. The estimate may be based either upon standardized diagnostic testing if your school conducts a program of diagnosis or upon teachers' reports."

*The "School Staffing Survey" provides an estimate of 3.9 percent of the public school pupils in 1968-69 as having speech impairments. The U.S.O.E. Bureau of Education for the Handicapped (BEH) estimates a prevalence close to this, about 3.6 percent. See the Commissioner's first annual assessment report, "The Education Professions: 1968," p. 308, for the BEH estimate.

The ratios for poverty schools in these categories become even more unfavorable when compared to some standard of adequate staffing. The Office of Education's Bureau of Education for the Handicapped, following the recommendations of the various concerned professional associations, suggests 80 as the desired number of speech-impaired students for each full-time speech therapist and 13 as the desired number of mentally retarded students assigned to each teacher. The table shows clearly that poverty-school ratios are much higher than the desired standard figures.

TABLE 9.—Ratios of Enrollment to Full-time Equivalence of Specialists for the Mentally Retarded

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	521	1,320	292	1,372
Nonpoverty schools	1,253	2,978	3,690	5,723

TABLE 10.—Ratios of Mentally Retarded Pupils to Full-time Equivalence of Specialists for the Mentally Retarded

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	20.0	37.0	14.5	33.3
Nonpoverty schools	12.2	17.4	21.0	11.1

Tables 11, 12, and 13 present data on various types of health services in poverty and nonpoverty schools. In these tables, the term "access" means any of the following: provision in the school, provision in another school in the school district to pupils enrolled in the first school, provision in a school in another school system to pupils enrolled in the first school, or provision through another agency. To illustrate: the percentages of schools *without* access to a dental hygienist—a smaller percentage means that a larger number of schools provide the service. Nearly three-fourths of all poverty elementary schools and 85 percent of poverty secondary schools do not provide access to the services of a dental hygienist. More poverty elementary schools, in general, provide this service than do nonpoverty elementary schools. There seems to be little difference between poverty and nonpoverty secondary schools in the provision of this service.

Data for seven health specialties are tabulated in a similar manner in table 12. The nonpoverty schools appear to have a very favorable advantage in only one category—the school psychologist. A survey of the availability of the most common type of service, the school nurse, shows the nonpoverty schools have a moderate advantage. In four staff specialties—psychiatrist, physician, dentist, and dental hygienist—the poverty schools provide greater access. But in the majority of comparisons, there are no large differences between poverty and nonpoverty schools. Overall, poverty elementary schools in the large cities appear to provide the greatest access to the greatest variety of health services. However, when the large-city school principals were asked whether they needed health staff in their schools, most answered affirmatively. Their responses by type of service are shown in table 13. This table clearly shows that principals of large-city poverty schools are far from satisfied with the amount and variety of health services available to their students. While no survey was made of specific health needs of children in poverty schools, a moderately greater number of health specialists per 100 children (as compared to nonpoverty schools) could turn out to be inadequate and in comparison to the staffing of nonpoverty schools and also in terms of the actual health problems of students.

TABLE 11.—Percent of Schools Without Access to the Services of a Dental Hygienist

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Poverty schools	73	85	53	72
Nonpoverty schools	93	89	93	76

TABLE 12.—Percent of Schools Without Access to Specific Health Services

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Psychiatrist				
Poverty school	74	69	38	53
Nonpoverty school	76	67	70	44
School psychologist				
Poverty school	46	62	10	28
Nonpoverty school	33	40	10	15

TABLE 12.—Percent of Schools Without Access to Specific Health Services—Continued.

	All Elementary schools	All Secondary schools	Large cities Elementary schools	Large cities Secondary schools
Physician (other than psychiatrist)				
Poverty school	57	67	31	33
Nonpoverty school	67	65	53	63
Dentist				
Poverty school	61	75	47	62
Nonpoverty school	73	88	81	65
Nurse				
Poverty school	28	16	8	4
Nonpoverty school	18	12	5	10
Dental Hygienist				
Poverty school	73	85	53	72
Nonpoverty school	93	89	93	76
Speech Therapist				
Poverty school	35	55	12	43
Nonpoverty school	28	44	7	46

TABLE 13.—Percent of Large-City Schools Reporting Additional Health Staff Needs

	Poverty schools Elementary	Poverty schools Secondary	Nonpoverty schools Elementary	Nonpoverty schools Secondary
Psychiatrist				
Nothing additional needed	20	23	40	30
Shorter waiting time for service	78	65	59	62
Resident in school	3	17	1	8
Totals	(*)	(**)	100	100
School psychologist				
Nothing additional needed	11	27	29	26
Shorter waiting time for service	47	56	69	43
Resident in school	42	21	9	31
Totals	100	(**)	100	100
Physician				
Nothing additional needed	41	58	84	84
Shorter waiting time for service	56	17	16	8
Resident in school	3	25	16	8
Totals	100	100	100	100
Dentist				
Nothing additional needed	47	58	89	98
Shorter waiting time for service	46	37	11	2
Resident in school	7	7	0	0
Totals	100	(**)	100	100
Nurse				
Nothing additional needed	44	58	46	58
Shorter waiting time for service	12	3	7	0
Resident in school	44	41	47	42
Totals	100	(**)	100	100

TABLE 13.—Percent of Large-City Schools Reporting Additional Health Staff Needs—Continued.

	Poverty schools Elementary	Poverty schools Secondary	Nonpoverty schools Elementary	Nonpoverty schools Secondary
Dental Hygienist				
Nothing additional needed	51	68	89	93
Shorter waiting time for service	45	11	5	7
Resident in school	4	22	6	0
Totals	100	(**)	100	100
Speech Therapist				
Nothing additional needed	31	57	38	76
Shorter waiting time for service	28	3	21	15
Resident in school	46	42	40	13
Totals	(**)	(**)	(*)	(**)

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*Detail does not sum to 100 percent because of rounding.

**Some principals wanted both shorter waiting times for service and a resident in the school.

TABLE 14.—Percent of Schools Without Selected Staff Services

	All Elementary schools	All Secondary schools	Large cities Elementary schools	Large cities Secondary schools
Supervisor of instruction				
Poverty school	55	51	48	23
Nonpoverty school	67	67	40	43
Physical education teacher				
Poverty school	69	1	20	1
Nonpoverty school	48	2	47	7
Kindergarten teacher				
Poverty school	60	(*)	41	(*)
Nonpoverty school	47	(*)	47	(*)
Resource teacher				
Poverty school	80	85	47	84
Nonpoverty school	73	90	61	85
Student teacher/teaching intern				
Poverty school	69	75	50	50
Nonpoverty school	68	45	47	30
Librarian				
Poverty school	33	1	16	1
Nonpoverty school	29	1	10	1
Audiovisual specialist				
Poverty school	84	61	77	63
Nonpoverty school	75	54	35	44
Counselor				
Poverty school	73	11	43	1
Nonpoverty school	68	1	42	1
School placement officer				
Poverty school	(*)	82	(*)	59
Nonpoverty school	(*)	81	(*)	70
Visiting teacher, school social worker, or school-community worker				
Poverty school	43	54	20	35
Nonpoverty school	67	68	21	28
School aides (all)				
Poverty school	41	31	22	20
Nonpoverty school	50	46	49	42

TABLE 14.—Percent of Schools Without Selected Staff Services—Continued.

	All		Large cities	
	Elementary schools	Secondary schools	Elementary schools	Secondary schools
Classroom aides				
Poverty school	42	64	28	74
Nonpoverty school	65	72	63	85
Clerks				
Poverty school	37	27	8	3
Nonpoverty school	15	4	8	8

*Does not apply.

TABLE 15.—Percent of Large City Schools with Additional Needs for Staff

	Poverty schools		Nonpoverty schools	
	Elementary	Secondary	Elementary	Secondary
Administrative staff	5	7	4	9
Classroom teachers	21	19	22	20
Teachers of handicapped	15	13	16	15
Services supporting instruction	14	14	17	22
Clerks	3	10	3	26
School aides (all)	42	38	37	28
	100	100	100	100
Total additional staff needed	84,700	28,000	34,000	10,000
Total additional staff needed as percent of current full-time classroom teachers	79	59	80	26

TABLE 16.—Percent Additional Staff Needed Is to Total Current Staff in the Same Assignment as Reported by Large City Schools

	Poverty schools		Nonpoverty schools	
	Elementary	Secondary	Elementary	Secondary
Total staff needed	49	44	39	33
Administrative	50	53	53	65
Classroom teachers	15	12	10	8
Teachers of the handicapped	91	112	308	292
Supportive services	161	93	307	100
School aides	137	706	938	1,010
Clerks	47	69	28	35

Expressed needs for clerks (where the need is nearly twice as large in poverty than in nonpoverty schools) and classroom teachers (where slight differences exist) are larger for poverty schools. As a consequence, total need is larger for the poverty schools. The need for additional staff in all other assignments—paraprofessional, professional, or when compared to current staff in these schools—is larger for both nonpoverty elementary and secondary schools than for their poverty counterparts. Table 16 shows the percentage the additional staff needed is to total current staff in the same assignment.

Pupil/staff ratios can be recomputed to reflect the ratio which would obtain where the principals' staff needs to be realized immediately. That is, to the number of the current staff in each assignment would be added, in imagination, the number of additional staff needed. Overall, pupil/staff ratios are generally lower for poverty elementary and secondary schools than for nonpoverty schools (table 17).

It should be noted that these are needs, and not expectations. Some principals who expressed the need for large numbers of additional staff did not expect to see these needs filled. They had varied reasons for their lack of hope. In one instance, certification requirements limited the number of social workers available. In another case, a principal complained that the school district office did not agree with him on the needs of his school: "I asked for three guidance counselors and they send me one speech therapist. What's the use?"

Characteristics of Teachers in Poverty Schools

This section will focus on three teaching staff characteristics which are frequently thought to affect the quality of instruction given to chil-

TABLE 17.—Existing and New, "Need-Added" Pupil/Professional and Pupil/Paraprofessional Staff Ratios.

	Poverty schools				Nonpoverty schools			
	Elementary		Secondary		Elementary		Secondary	
	Exist	New	Exist	New	Exist	New	Exist	New
Administrative	299	198	292	184	529	344	601	363
Classroom teachers	23.4	20.4	21.9	19.7	18.9	17.2	32.9	30.4
Teachers of the handicapped	178	93	325	154	799	195	1,586	404
Supporting services	354	136	251	130	754	185	373	186
School aides	96	41	683	84	1,063	102	2,902	261
Clerks	401	274	266	158	454	455	451	534

dren. These are teacher separation rates, teacher experience levels, and teacher certification.

In the fall of 1968, public schools in the Nation's large cities employed 370,000 full-time classroom teachers. This total was, in round numbers, 5,100 more than these same schools employed at the beginning of the preceding school year. The figure of 5,100 was a net increase over the preceding year and was obtained from the difference between a *gross loss* to these schools of about 71,400 of their 1967 teachers and a *gross gain* of about 76,000 teachers for 1968. However, before the significance of such net and gross statistics can be realized, two terms must be explained. *Separations* refers to all teachers who taught (in any school) in the preceding year but did not teach at all in the survey year. It provides an estimate of the demand for teachers as replacements. *Loss to the teaching profession* is the separation or gross demand figure minus the number of former teachers returning to teaching. The *loss* provides an estimate of the net demand for additions to the teacher supply for replacement. The total demand for new teachers is made up of this number plus new authorized positions.

The last national survey providing estimates of teacher separations and losses to the profession was conducted more than 10 years ago. It provides a statistical yardstick still in general use. The separation rate in 1959–60 for school districts enrolling over 25,000 students may be compared, usefully if not exactly, with the same statistics for the large cities covered by the "School Staffing Survey" in 1968–1969. No breakdown of the earlier statistics into poverty and nonpoverty categories is possible, nor can a loss figure for the large school districts for 1959–1960 be found at this time. In 1959–1960, the separation rate for teachers in large school districts was 12.5 percent of the number of teachers in the previous year, 1958. In 1968–1969, the separation rate for teachers in the schools of the Nation's large cities was 10.9 percent of the number of teachers in the previous year, 1967. The change has not been significant.

Table 18 presents additional statistics for 1968. It reveals that teachers in both poverty and nonpoverty schools in the large cities separate at about the same rate. The only jump occurs in the figure for nonpoverty elementary schools. The figures also show that poverty schools needed to fill 21,300 positions. One of the main problems in recruitment for large city poverty schools may simply be the large number of positions that have to be filled. Table 19 gives some indication of the kinds of teachers who filled these positions. However, few conclusions can be drawn from it. Each type of teacher is found with fairly similar relative frequency in both poverty and nonpoverty schools. But there are some small differences: relatively more teachers in nonpoverty schools are transferring teachers; the percentage of inexperienced teachers in poverty secondary schools is higher than in nonpoverty schools, but the separation for both types of elementary schools is about the same.

If these comparisons are considered in terms of the total numbers of additions, other findings emerge to demonstrate the various ways of examining the problem of teacher mobility. The number of additions who are transfers into nonpoverty schools is higher (11,000) than into poverty schools (13,000). The number of new inexperienced teachers is greater in poverty schools (13,000) than in nonpoverty schools (6,700). These figures together with earlier findings tend to support the proposition that staffing problems in these districts are related to the relatively large number of poverty schools in large cities.

TABLE 18.—Numbers of Classroom Teachers, Fall 1968 Gross Gains and Losses, and Separation Rates in Large Cities:

	Poverty schools		Nonpoverty schools	
	Elementary	Secondary	Elementary	Secondary
Number of full-time classroom teachers, fall 1968	107,400	47,200	42,700	41,800
Net change from fall 1967	−600	+1,000	+400	−800
Number of fall 1967 staff loss to schools	17,700	10,600	11,300	10,000
Percent of 1967 staff	16	23	27	23
Number of fall 1967 staff separating from teaching	10,900	5,000	6,700	5,100
Percent of 1967 staff	10	11	16	12
Number of staff gained for schools, fall 1968	17,100	11,600	11,700	9,100
Percent of 1968 staff	16	25	27	22

TABLE 19.—Numbers of Additions to Schools' Staffs, Fall 1968, and Percent Additions Are of Total Staff

	Poverty schools		Nonpoverty schools	
	Elementary	Secondary	Elementary	Secondary
Total number of additions to schools' staff	17,100 (16%)	11,600 (25%)	11,700 (27%)	9,100 (22%)
Never taught school before	7,600 (7%)	5,400 (12%)	3,300 (8%)	3,400 (8%)
Taught before, but not during 1967–68	2,500 (2%)	900 (2%)	1,100 (3%)	500 (1%)
Taught in another public school in the same school system, 1967–68	2,100 (2%)	2,400 (5%)	3,800 (9%)	3,500 (8%)
Taught in another public school in a different school system, 1967–68	3,100 (3%)	1,200 (2%)	2,600 (6%)	1,100 (3%)
Other additions	1,900 (2%)	1,700 (4%)	900 (2%)	600 (1%)

None of these statistics, however, give any indication of the effect of teacher mobility on students. The higher the rate of teacher mobility, the more inexperienced or beginning teachers there will be in the schools. The data show that, generally, there are more inexperienced teachers in poverty elementary and secondary schools than in nonpoverty schools (table 20). Furthermore, inexperienced teachers affect a much larger number of pupils in poverty schools than they do in nonpoverty schools, although the percent of pupils affected shows little difference.

TABLE 20.—Pupil/Teacher Ratios and Numbers of Inexperienced Teachers and Pupils Affected by Them

	Poverty schools		Nonpoverty schools	
	Elementary	Secondary	Elementary	Secondary
Pupil/teachers ratio (average)	23.5	21.6	27.1	23.0
Number of inexperienced teachers	7,583	5,425	3,322	3,435
Number of pupils affected by inexperienced teachers	178,200	117,180	90,026	79,005
Total number of pupils	2,350,000	1,011,000	656,962	681,000
Percent of pupils affected by inexperienced teachers	8	127	5	12

Another characteristic that differentiates poverty from nonpoverty school staffs is the number of teachers with less than full certification. Principals of large-city schools were asked about the number of classroom teachers in their schools in 1968–1969 who had less than the standard or full certification granted by the State (table 21). It should be noted here that secondary school teachers tend to be certified in a subject matter field and, while many principals know which teachers have full certification, they will not always know whether the certification is in the same academic areas as their current assignment.

Inservice education is also considered vital. Principals in large-city schools were asked to provide information on teacher participation in inservice programs (including whether or not time was scheduled during regular school hours so that teachers could plan instruction). Principals of both types of large-city schools reported that at least one teacher in their schools participated in some kind of inservice program, either during the summer of 1968 or during the 1968–69 school year. Summer programs were less frequent than school-year programs, which were reported by almost all schools. About half the large-city elementary schools of both types reported a policy of scheduling planning time. About 90 percent of the secondary schools of both types reported the same kind of policy.

TABLE 21.—Number of Classroom Teachers with Less than Standard or Full Certification

	Poverty schools		Nonpoverty schools	
	Elementary	Secondary	Elementary	Secondary
Number of classroom teachers with less than standard or full certification	5,300	2,300	1,000	400
Percent of total number of full-time/teachers classroom	5	5	2	1

A note about the quality of the data provided by the "School Staffing Survey"

The source of most of the data reported is the "School Staffing Survey," May 1969. The survey was conducted by the National Center for Educational Statistics in cooperation with the Bureau of Educational Personnel Development and the National Center for Educational Research and Development.

The survey sample design consists of two stratified samples of schools, totaling 712 schools, representing the public elementary and secondary schools of the 48 contiguous States and the District of Columbia, excluding schools for the handicapped and State-operated schools.

If a census were taken instead of a small sample survey, it is likely that the results would differ for each datum. For example, there are two chances in three that poverty elementary schools with less than 10 percent minority enrollment really range between 52 percent and 70 percent of the poverty elementary schools.

Also, it is important to note that over 95 percent of the designated respondents completed at least 98 percent of each of the questions asked. Finally, the nonsampling error associated with the data from the survey is probably very low. More than half of the completed questionnaires were field edited with the respondent. All questionnaires were completely edited upon their receipt and each respondent whose report contained an inconsistency or inaccuracy was contacted and his report corrected. Keypunching and tabulation procedures and products were subjected to similar quality control procedures.

For all of these reasons, it seems fairly safe to conclude that the "total error," sampling and nonsampling, for this survey is acceptable.

CHAPTER 4

Staffing of Schools Serving Mexican-Americans

The Problem and Needs

This chapter deals with the educational status and problem of Mexican-Americans, the Nation's largest group of Spanish-surnamed, or Spanish-speaking Americans.[1] * Most of these people were born in the United States; their heritage in this country goes back as far as the early 16th century, though some are recent migrants from Mexico. There are approximately 5 million Mexican-Americans in the United States. They can be found in nearly every State —some as migratory workers. About 85 percent live in five Southwestern States—California, Texas, New Mexico, Arizona, and Colorado—with about 80 percent of this total living in California and Texas. Most live in urban areas.

Many Mexican-American children do not fare well in the schools. The basic problem is the unwillingness and inability of society, and especially of the schools, to deal with discrimination against Mexican-Americans.

There are many specific difficulties: crowded and run-down facilities, large class size, poor counseling and guidance services, inadequate vocational education programs, isolation of Mexican-Americans in segregated schools, testing and tracking practices that separate Mexican-Americans from other children within schools, inadequate teacher preparation, and inappropriate textbooks and other teaching materials. It is clear, however, that there is also a more general and pervasive problem—the schools function as mirrors of some of the more destructive attitudes of the dominant society.

> "It's the way the schools feel, the attitudes of the schools toward the Mexican-American. In fact, grievances about education have provided the impetus for community and parental action and organization. The groups thus formed, however, greatly need technical advice and educational programs of their own," a parent said in Los Angeles in 1967.

Mexican-American parents are, of course, not alone in challenging some of the prevailing attitudes. In 1967, a Colorado State government report on Spanish-surnamed citizens found that it is the prevailing opinion among many school administrators that Mexican-American youth "do not aspire to educational success." But, the report asserted:

> The lack of aspiration in any Spanish-surnamed student is probably not his failure to accept prevailing cultural goals, but his awareness that he cannot make it. Assuming he has the ability, as do many Spanish-surnamed students who drop out of school, it is the educational system and the majority society which kill his aspiration, not an inner deficiency.[2]

The focus here is not how well Mexican-American children succeed in our schools, or the impact of Mexican-American culture on education, or the future for Mexican-Americans in terms of their education, but the extent to which the staffing patterns and arrangements in schools which enroll Mexican-American children contribute to or alleviate the educational difficulties of these children. This chapter asserts that teachers and other professionals in Mexican-American schools are generally of poorer quality than are those in predominantly Anglo schools; they are often unable to deal effectively with the cultural patterns of Mexican-American children; and they do not take positive advantage of the attitudes and aspirations of the children. In addition, educators have failed to find and use potential resources

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* The footnote references in text are listed at end of chapter.

and promising ideas to improve the educational staffing in schools where enrollments are predominantly Mexican-American.

The Demographic Setting

Our knowledge and data about the Mexican-American population come largely from census reports which classify Mexican-Americans by counting Spanish-surnamed persons. We must thus rely on data more than 10 years old, collected by a technique that has obvious limitations. Many Spanish-sounding names are not necessarily Spanish and many Mexican-Americans may, for a variety of reasons, have non-Spanish sounding names. However, the errors, if errors exist, are probably on the conservative side; thus, any conclusions one makes about the status of Mexican-Americans are probably understated. The concern here is not for the entire Spanish-American population, but for the Mexican-American component which, as table 22 notes, represents about half the total.

Table 22.—Origin or Descent of the Spanish-American Population, November 1969

Origin or descent	*Number* (in thousands)	Percent
Mexico	5,073	55.0
Puerto Rico	1,454	15.8
Cuba	565	6.1
Central & South America	556	6.0
Other Spanish-American	1,582	17.1
Total	9,230	100.0

Source: U.S. Department of Commerce, Bureau of the Census, "Spanish-American Population: November 1969," *Current Population Reports*, Series P–20, No. 195 (Washington, D.C.: Government Printing Office, February 20, 1970), 2 pp.

The data in table 22 are from a 1969 survey and were not gathered in the same way as the 1960 census data. However, a rough comparison of the two periods suggests that the Mexican-American population is undergoing tremendous changes. According to the 1960 census data, the Mexican-American population totaled about 3.5 million at that time. The 1969 study reports a population of about 5 million—an increase of over 40 percent from 1960 to 1969. However, one student of Mexican-American affairs[3] claims that the 1970 census will report an even higher number—about 6 million. Even assuming some inflation of these figures due to the lack of comparability in the data, this incredible growth raises questions about the Mexican-American population: How much of this growth is a result of natural increase? How much is from migration? How has the school-age population changed? These questions are of immediate importance to educators, and their answers are not available.

The 1960 Mexican-American population, which as we noted was about 3.5 million persons, accounts for about 2.3 percent of the total population of the United States. In the States where they are concentrated, Mexican-Americans represent sizable minorities (see table 23). However, although the overwhelming majority live in five Southwestern States—there are large concentrations in Michigan, Illinois, Indiana, Ohio, and Wisconsin.

Table 23.—Distribution of Spanish-Surnamed Population Among the Five Southwestern States

State	Total State population	Spanish-surnamed number	Population percent	Percent of total Spanish-surnamed population
California	15,717,204	1,426,000	9.07	41.18
Texas	9,579,677	1,418,000	14.80	40.92
New Mexico	951,023	269,000	28.29	7.76
Arizona	1,302,161	194,000	14.90	5.60
Colorado	1,753,947	157,000	8.95	4.53
Total	29,304,012	3,465,000	11.82	99.99

Source: Salvador Ramirez, *The Extent of Educational/Social Effects of Peer Groups and Societal Influence Among Mexican Americans, Los Batos*, pp. 3 and 4.

There are several basic facts about Mexican-Americans that are important for this discussion:

- About 85 percent were born in the United States.
- About one-third are members of families below the poverty level.
- Their unemployment rate is about twice that of Anglos.
- About 80 percent in the labor force are in unskilled, semiskilled, or generally low-paying jobs.
- About 80 percent live in urban areas.
- About four out of 10 are under 15 years of age as compared to about three out of 10 for the population of the United States as a whole.
- Their average age is about 20, compared to an average age of 28 for all Americans.

- Their birth rate is more than twice that of Anglos and nearly twice as high as that of Negroes.

- The proportion of families of seven or more persons is over three times that of Anglos.

- They have a shorter life expectancy than Anglos—in some cases by as much as 10 years.

The Cultural Setting

It is beyond the scope of this chapter to describe in any details the cultural setting of the Mexican-American community. No attempt will be made to explain how or why cultural patterns developed and persisted throughout the history of our country. The purpose here is to focus on the impact of the Mexican-American cultural configuration on the education of Mexican-American children. However, it is erroneous to imply that there is such a thing as a clear-cut, distinct Mexican-American cultural entity. There are enormous differences among Mexican-Americans who are, for example, migratory workers, recent immigrants, urban workers in Los Angeles, rural farmers in New Mexico, or school teacher professionals in San Francisco. Nevertheless, there are broad traits, characteristics, and patterns that students of Mexican-American affairs have come to identify as components of a Mexican-American cultural pattern. Information about Mexican-American culture should be used by the schools to better understand and relate to the children.

One essential characteristic of the Mexican-American culture is that it is really a mixture of two main cultural streams—Anglo and Mexican. Only the most recent and isolated migrants are exempt from the cultural conflict that stems from this mixture. Thus, most Mexican-Americans live in two cultures, which do not always blend well together. Anthropologists have long recognized conflict between cultures as a source of serious personal and social problems. For children, it creates confusion over definitions of right and wrong and develops hostilities and anxieties toward other people, particularly parents. The difficulty for children growing up in two cultures is that it affects their school performance, attitudes, and motivations. Teachers, counselors, and the school setting have traditionally contributed to the educational problems of these youngsters.

Low self-esteem often results when students meet constant failure, as misunderstandings occur, and when they fail to encounter positive experiences likely to instill pride in themselves and their heritage. One student stated:

> We began to think that maybe the Anglo teacher is right, that maybe we are inferior, that we do not belong in his world, that, as some teachers actually tell students to their faces, we should go back to Mexico and quit causing problems for America.[4]

The Mexican-American child is thrust into personal and social situations in a variety of areas—life, health, morality, dress, etc.—that demand competing modes of conduct in the same situations. Not only does this threaten personal and social stability within the Mexican-American community, but these conflicts force many people to choose one of two alternative actions. Faced with cultural conflict and with a school which does not build on the strengths of Mexican-American cultures causes many children to withdraw physically, emotionally, and intellectually. In children, this withdrawal may result in deliberate failure in school and sullen or noncommunicative behavior. Many children faced with cultural conflict aggressively lash out at both cultures. The child may become violent toward both his parents and peers, or reject codes and values in both cultures.

There are some features in Mexican-American culture which are at odds with the dominant culture. First is the language barrier. A large proportion of Mexican-Americans speak Spanish. Thus, children come to the educational setting with little or no knowledge of English and many have only a rudimentary command of Spanish before they are forced to learn English. Only lately have schools taken into account the language difficulties of Mexican-American children.

Second, many Mexican-Americans in the southwestern States live in barrios, or urban slums. For the most part, these are enclaves cut off from the broader community physically, economically, socially, and psychologically. They tend to perpetuate values, attitudes, beliefs, and behavioral patterns characteristic of the Mexican-American community and to reduce and lessen contacts Mexican-American children may have with the dominant society. Barrio life also has an impact on the educational process. Many barrios are largely pockets of poverty where limited social services are available, where schools are inferior, where serious health problems exist, where delinquency rates and family disintegration are high, etc. Migrant workers, of whom about 100,000 are of Mexican origin, face even more serious problems of isolation. Because they follow the crops, the families sometimes have no roots at all. Because family wages are low and because all levels of government fail to enforce child welfare laws, such as school attendance and child labor laws, many young children work rather than go to school.

Third, the family is the central structuralizing principal of Mexican-American life. A child's first and primary loyalty is to his family. The father is a key authority figure, and the children and mother adhere to and respect his demands. Others have pointed out that the Mexican-American culture has never completely accepted the Anglo stress on time, change, efficiency, success, communication techniques, etc. One student of the Mexican-Americans claims that there are at least six general value orientations that stand out in the cutlure of these people:

> Traditionalism, familism, paternalism, personalism, dramatism, and fatalism. Familism and paternalism, both traditional values of the Mexican culture, extend throughout . . . and furnish organizational models for relationships outside the sphere of kinship. A man's position and prestige is largely dependent upon his basic qualifications as head of a household, and the familistic orientation may help to explain the quasi-parental authority of older over younger siblings. Feminine roles are oriented to the primary familistic roles. The concept of friendship on the kinship model illustrates the familistic tendency, since extended use may be made of the terms *primo* or *compadre* when speaking to friends. Paternalism is seen in the superordination of the male and in the relationship of older brothers to younger ones. M. S. Edmondson sees these values as being in contrast with Anglo values, for where the Spanish-speaking may emphasize traditionalism, the Anglo culture tends to emphasize progress and change; where the culture of the Spanish-speaking is paternalistic, that of the Anglos is egalitarian; where the culture of the Spanish-speaking values familism, that of the Anglo emphasizes individualism.[5]

If the Mexican-American cultural setting is not one that is conducive to educational achievement in the Anglo world, then this setting combined with discrimination, barrio living, poor nutrition, language difficulties, poor housing, overcrowded family settings, etc., goes a long way toward explaining the problems of Mexican-American children in the American educational system.

Mexican-Americans in the Schools

Given this cultural conflict with all its attendant problems, it almost inevitably results that many Mexican-Americans do not fare well in American schools. In 1960, there was about a 4-year gap in median years of schooling between Mexican-Americans and Anglos. There are, however, signs of progress.

Table 24 compares educational completion levels for three age groups of Anglos, Spanish-surnamed persons, and nonwhites. Adults (those 25 years of age and over) for all practical purposes have completed their formal education. The data indicate that in terms of education, Spanish-surnamed adults are at an extreme disadvantage compared to Anglos and nonwhites. They have, on the average, 7 to 8 years of schooling (7.1 years for the Southwest as a whole, ranging from 4.8 years in Texas to 8.6 years in California). This is about 4 to 5 years below the Anglo population and about 2 years below the nonwhite population. The data for youth and young adults are somewhat brighter. Persons in this age group are still in the process of completing their education. Spanish-surnamed persons are about 1 year below nonwhites and about 2 years below the Anglo group.

Table 24: Median Years of School Completed by Spanish-Surnamed Persons Compared With Other Population Groups and Various Age Classes in Five Southwestern States, 1960

	Median Years of School Completed		
State and age group	Anglo	Spanish-surnamed	Nonwhite
Southwest			
14 years and over	12.0	8.1	9.7
14–24 years	11.3	9.2	10.6
25 years and over	12.1	7.1	9.0
Arizona			
14 years and over	12.0	8.0	7.7
14–24 years	11.1	8.9	8.5
25 years and over	12.1	7.0	7.0
California			
14 years and over	12.1	9.0	10.8
14–24 years	11.4	10.2	11.3
25 years and over	12.2	8.6	10.6
Colorado			
14 years and over	12.1	8.6	11.2
14–24 years	11.5	9.6	11.1
25 years and over	12.2	8.2	11.2
New Mexico			
14 years and over	12.1	8.3	7.9
14–24 years	11.2	9.5	8.7
25 years and over	12.2	7.4	7.1
Texas			
14 years and over	11.4	6.2	8.7
14–24 years	11.1	8.1	10.2
25 years and over	11.5	4.8	8.1

Source: Leo Grebler, *The Schooling Gap: Signs of Progress, Advance Report 7. Mexican-American Study Project* (Los Angeles, California: University of California, March 1967), p. 9.

It should be remembered that these data are for 1960; data for 1970 will undoubtedly be vastly different. The median educational level for adult Americans is about 12 years of schooling. Data for 1970 will probably show the Anglo level about the same; the nonwhite group will probably increase to the current Anglo level, and the Spanish-surnamed population will probably be slightly above 1960 nonwhite levels. Although still too low, this will represent some improvement. Another aspect that should not be discounted is that counting years of schooling ignores the factor of educational quality. In all probability, the quality of schooling received by Mexican-American children is much lower than that received by Anglos. Thus, these educational attainment levels should be scaled down.

Migration is yet another factor to be considered. Leo Grebler has developed data that show marked differences in educational levels between urban and rural Mexican-Americans. Urban males 14 through 24 years of age completed approximately 9.3 median years of schooling while nonfarm males completed 8.6 years and farm males completed 7.1 years. The education offered in urban areas, while often very inadequate, is probably of higher quality than that found in rural areas and, as migration continues, the quality of education for Mexican-American youth will continue to improve.

Another way of looking at the situation is to examine that part of various population groups which have completed specified years of schooling. These data presented in table 25 show, for example, that over 33 percent of the Spanish-surnamed adults in 1960 reported less than 4 years of schooling against 4.4 percent of Anglo adults and 18.6 percent of nonwhite adults. This is a tragically high figure. Analysis of these data suggest that the younger age groups show marked progress.

Table 25 suggests other important considerations: About one-quarter of the Anglo and 12 percent of the nonwhite adult population have had "some college," but only about 6 percent of the Spanish-surnamed population have had "some college." These figures, coupled with data presented later on Mexican-Americans currently enrolled in colleges, raise serious questions about the supply of Mexican-American educational personnel. Finally, the same criteria applied to the data in table 24 should be applied in table 25; the low quality of education received by Mexican-Americans suggest lowering by several years the reported years of schooling of Mexican-Americans.

Table 25.—Percent of Anglo, Spanish-surnamed, and Nonwhite Age Groups With Specified Years of Schooling in the Southwest, 1960

	Age group		
Educational attainment [1]	14 and over	14–24	25 and over
Anglo			
Elem. school 0–4 years	3.7	1.2	4.4
Elem. school 8 years	12.8	12.3	13.2
High school 4 years	27.8	25.6	28.4
Some college [2]	22.1	15.2	23.9
Spanish-surnamed			
Elem. school 0–4 years	27.6	9.0	35.6
Elem. school 8 years	12.9	16.3	11.5
High school 4 years	12.8	14.0	12.2
Some college	5.6	4.2	6.2
Nonwhite			
Elem. school 0–4 years	15.1	3.1	18.6
Elem. school 8 years	12.1	12.7	11.9
High school 4 years	18.7	21.0	18.0
Some college	11.7	10.0	12.2

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[1] Percentages for each age group do not add to 100 percent since some intermediate school levels are omitted.

[2] Includes in each category 1 to 3 years of college as well as complete college education (4 years or more).

Source: Leo Grebler, *The Schooling Gap: Signs of Progress, Advance Report 7, Mexican-American Study Project* (Los Angeles, California: University of California, March 1967), p. 14.

Mexican-American youth in 1969 lagged considerably behind Anglos and nonwhites in terms of educational enrollment at the teenage level. As pointed out in table 26, the upper high school grades (ages 16 and 17) are the years when the greatest number of Mexican-Americans fall behind—83.6 percent of Anglos, 76.7 percent of nonwhites, and 66.9 percent of Mexican-Americans aged 16 and 17 years were in school in 1960. Texas is consistently lowest among the five Southwestern States (for Anglo, Spanish-surnamed, and nonwhite alike), and California generally has the highest proportion of all three groups in school. Indeed, in California, the proportion of Spanish-surnamed children 14 and 15 years old in school is just a few points below that proportion for Anglos in Texas.

TABLE 26.—Percent of Teenagers Enrolled in School: Spanish-surnamed Persons Compared With Other Persons in Five Southwestern States, 1960

	Southwest	Arizona	California	Colorado	New Mexico	Texas
Ages 14–15						
Total	94.3	92.9	96.3	95.2	93.4	91.6
Anglo	96.0	95.0	96.8	96.1	96.0	94.6
Spanish-surnamed	88.0	90.2	92.9	89.4	93.3	82.7
Nonwhite	91.4	83.9	96.0	94.3	77.0	89.6
Ages 16–17						
Total	80.6	79.1	83.3	83.5	81.5	76.3
Anglo	83.6	83.7	84.6	86.0	85.6	81.2
Spanish-surnamed	66.9	68.3	73.7	68.0	76.3	58.6
Nonwhite	76.7	67.3	82.4	73.4	74.2	73.4
Ages 18–19						
Total	41.9	45.4	40.8	48.0	41.6	41.9
Anglo	43.3	47.6	41.4	50.1	40.9	44.8
Spanish-surnamed	33.2	36.6	33.1	34.0	41.7	31.1
Nonwhite	42.3	46.2	44.5	37.2	45.8	39.8

SOURCE: Leo Grebler, *The Schooling Gap: Signs of Progress, Advance Report 7, Mexican-American Study Project* (Los Angeles, California: University of California, March 1967), p. 42.

As might be expected, vocational education is not meeting the needs of Mexican-American youth. In a 1968 study[6] which identified on a nationwide basis "effective" vocational education programs for the disadvantaged, no such programs were found for Mexican-American youth.

The patterns noted above are repeated at the college level. Table 27 provides raw data on the number of Mexican-Americans in 1960 who had some college education. The pool of college-trained Mexican-Americans is quite small. For example, in the entire Southwest in 1960, only about 117,000 out of 3.5 million Mexican-Americans over 14 years of age had been to college. This figure represents only 3.3 percent of the Mexican-American population. Only about 37,000 had what can be assumed to be a complete college education of 4 years or more. This scarcity of trained manpower helps to account for the shortage of Mexican-American professional educators in schools serving this group. This issue will be more fully discussed later.

TABLE 27.—Number of Spanish-surnamed Persons With Some College Education, Southwest 1960 (persons 14 years old and older)

Area and sex	Years of college 1–3 years	4 years or more	Total
Southwest			
Male	47,239	24,001	71,240
Female	32,626	13,127	45,753
Total	79,865	37,128	116,993
Arizona			
Male	1,847	1,125	2,972
Female	1,156	521	1,677
Total	3,003	1,646	4,649
California			
Male	28,005	13,254	41,259
Female	19,685	6,867	26,552
Total	47,690	20,121	67,811
Colorado			
Male	1,786	1,066	2,852
Female	1,475	617	2,092
Total	3,261	1,683	4,944
New Mexico			
Male	3,521	2,113	5,634
Female	1,974	1,198	1,172
Total	5,495	3,311	6,806
Texas			
Male	12,080	6,443	18,523
Female	8,336	3,924	12,260
Total	20,416	10,367	30,783

SOURCE: Leo Grebler, *The Schooling Gap: Signs of Progress, Advance Report 7, Mexican-American Study Project* (Los Angeles, California: University of California, March 1967) p. 15.

Table 28 presents current enrollment information for Mexican-Americans at the university level in some major southwestern schools. These data do not present the entire enrollment in each State—more schools are excluded than included. Also, in all probability these data include many non-Mexican-American students. However, the proportion of Mexican-Americans enrolled in and graduating from these schools —about 1 percent—is so small that a significant increase cannot be expected in the college-trained manpower pool of Mexican-Americans.

Table 29 indicates that there is an overwhelming proportion of Mexican-Americans in low-level jobs.

Staffing Patterns in Schools Serving Mexican-American Children

In 1969, the United States Civil Rights Commission completed a major survey[7] of policies, procedures, and practices of school systems toward Mexican-American children in the five southwestern States having large concentrations of Mexican-Americans. Data in this section are derived from that survey.

Tables 30 and 31 present data on the numbers of Spanish-surnamed persons, Anglos, and others employed at all levels in elementary and secondary schools. Generally, Spanish-surnamed staff represent less than 14 percent of staff employed in both types of schools, with elementary schools employing a slightly higher percentage of Spanish-speaking persons. The data show little or no relation between the proportion of Spanish-speaking persons living in each State and the proportion of Spanish-speaking persons (to others) employed in the schools in each State. Table 32 provides this comparison. In only two States—Texas and Arizona—does the proportion of school employees come close to matching the Spanish-speaking population. Texas has a better record than most States: the percentage of school staff that is Mexican-American is greater than the percentage of Mexican-Americans in the Texas population. However, most of these occupy the lowest levels of employment.

TABLE 28.—Spanish-surnamed College Enrollment in Five Southwestern State Universities, 1968–69 School Year

University	Total enrollment	Spanish-surnamed enrollment	Spanish-surnamed graduates
University of Arizona, Tucson	14,786	864	136
University of California, Los Angeles	18,717	325	(*)
University of Colorado, Boulder	14,803	158	67
University of New Mexico	9,181	1,189	145
University of Texas, Austin	24,566	852	208

*Not available.

SOURCE: Salvador Ramirez, *The Extent of Educational/Social Effects of Peer Group and Societal Influence Among Mexican-Americans*, Los Batos, p. 28 (unpublished paper).

TABLE 29.—Occupational Distribution of Employed Mexican-American Males and Anglo Males in Five Selected Southwestern States: 1960

Occupation	Percent employed in five selected Southwestern States Mexican-American	Anglo
Professional, technical	4.8	15.9
Farmers and farm managers	.7	.7
Managers and proprietors exc. farm	5.2	15.4
Clerical and kindred	5.8	8.2
Craftsmen, foremen, etc	19.2	22.5
Sales workers	4.2	9.7
Operative, etc	26.8	16.6
Private household workers	.1	.1
Service workers exc. private household	8.8	5.7
Farm laborers and foremen	7.7	.6
Other laborers	16.7	4.6
Total	100.0	100.0

SOURCE: Salvador Ramirez, *The Extent of Educational/Social Effects o Peer Group and Societal Influence Among Mexican-Americans*, Los Batos p. 36 (unpublished paper).

TABLE 30.—Number and Percent of Spanish-surnamed Employees in a Sample of Elementary Schools in Southwestern States*

State	Spanish-surnamed		Anglo		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Arizona	119	8.40	1,218	85.96	80	5.65	1,417	100.01
California	743	6.37	9,607	82.30	1,323	11.33	11,673	100.00
Colorado	109	9.12	1,007	84.27	79	6.61	1,195	100.00
New Mexico	402	26.84	1,066	71.16	30	2.00	1,498	100.00
Texas	1,680	23.46	5,075	70.88	405	5.66	7,160	100.00
TOTAL	3,053	13.31	17,973	78.34	1,917	8.36	22,943	100.01

SOURCE: U.S. Commission on Civil Rights, "Mexican-American Education Study" (1969).

*These figures include large numbers of noncertificated personnel as shown by the classifications in table 12.

Table 31.—Number and Percent of Spanish-surnamed in a Sample of Local Secondary School Personnel Employed in Southwestern States*

State	Spanish-surnamed		Anglo		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Arizona	70	8.37	737	88.16	29	3.47	836	100.00
California	452	6.46	6,044	86.40	499	7.13	6,995	99.99
Colorado	48	5.22	851	92.50	21	2.28	920	100.00
New Mexico	269	26.09	740	71.77	22	2.13	1,031	99.99
Texas	467	15.33	2,347	77.03	233	7.65	3,047	100.01
TOTAL	1,306	10.18	10,719	83.55	804	6.27	12,829	100.00

Source: U.S. Commission on Civil Rights, "Mexican-American Education Study" (1969).

*These figures include large numbers of noncertificated personnel as shown by the classification in table 34.

Table 32.—Percent of Spanish-speaking Persons in Selected Southwestern States in 1960, and Percent of Elementary and Secondary School Employees in a Sample of Southwestern State Schools*

State	Percent Spanish–speaking in total population	Percent Spanish-speaking employed in elementary schools	Percent Spanish-speaking employed in secondary schools
California	9.07	6.37	6.46
Texas	14.80	23.46	15.33
New Mexico	28.29	26.84	26.09
Arizona	14.90	8.40	8.37
Colorado	8.95	9.12	5.22

Source: Population data from table 23 and school data from tables 30 and 31.

*These figures include large numbers of noncertificated personnel as shown by the classifications in tables 33 and 34.

The key data are not the overall employment patterns of Spanish-speaking persons in the schools, but rather the levels at which Spanish-speaking persons are employed. Tables 33 and 34 report the employment of Spanish-speaking persons at several levels in elementary and secondary schools. Of all the Spanish-speaking persons in the sample groups, a very low proportion are school principals—only 6.84 percent of the high school principals are Spanish-speaking persons. In fact, only about 2 percent of all Spanish-speaking persons in the sample are principals. The proportion of Spanish-speaking persons who have classroom contact is higher. In the elementary schools, about two-thirds of the Spanish-speaking persons are counselors, librarians, teachers, or aides. At the high school level, the proportion of Spanish-speaking persons employed as counselors, librarians, teachers, and aides represents slightly more than half the Spanish-speaking group.

Looking at the data in tables 33 and 34 in a slightly different way, we see that in terms of the various population groups, Spanish-speaking persons represent a small proportion of the total number employed, except in the cases of clerical and maintenance workers and teacher aides.

Table 33.—Number and Percent of Spanish-surnamed, Anglo, and Other Groups Employed In Selected Positions in Elementary Schools in Selected Southwestern States

Position	Spanish-surnamed		Anglo		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
School principals	78	8.93	769	88.09	26	2.98	873	100.00
Counselors, librarians, and teachers	1,497	8.58	14,623	83.84	1,322	7.58	17,442	100.00
Clerical/maintenance	909	28.45	1,881	58.87	405	12.68	3,195	100.00
Teacher aides	569	39.71	700	48.85	164	11.44	1,433	100.00
TOTAL	3,053	13.31	17,973	78.34	1,917	8.36	22,943	100.01

Source: U.S. Commission on Civil Rights, "Mexican-American Education Study" (1969).

Table 34.—Number and Percent of Spanish-surnamed, Anglo, and Other Groups Employed in Selected Categories in a Sample of Secondary Schools in Southwestern States

Position	Spanish-surnamed		Anglo		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
School principals	60	51 or 52	170	89.47	7	3.68	1,100	99.99
Counselors, librarians and teachers	711	7.10	8,796	87.78	513	5.12	10,020	100.00
Teacher aides	46	33.09	82	58.99	11	7.91	139	99.99
Clerical and maintenance	536	21.61	1,671	67.38	273	11.01	2,480	100.00
TOTAL	1,306	10.18	10,719	83.55	804	6.27	12,829	100.00

Source: U.S. Commission on Civil Rights, "Mexican-American Education Study" (1969).

The U.S. Civil Rights Commission survey asked whether or not the school districts employed consultants on Mexican-American affairs during the 1968–69 school year. It was revealed that only spotty use was made of consultants on Mexican-American educational affairs. Table 35 shows that for all the States in the survey, about eight out of 10 school districts (405 of 527) reported no utilization of educational consultants specializing in Mexican-American affairs. Slightly better than one out of 10 school districts (61 or 527) used consultants up to 4 days; the rest—another one out of 10—of the school districts used consultants 5 days or more. Tables 35 and 36 also reveal where the consultants were used in terms of the proportion of Mexican-American enrollment in the school districts. Table 35 indicates that for the overwhelming majority of all school districts, regardless of the proportion of Mexican-Americans enrolled, about 75 percent did not use such consultants. Table 36 presents essentially the same conclusion by State. One of the reasons for this is that it was not until 5 years ago that attention started to be given to the serious problem of educating Mexican-Americans.

TABLE 35.—Reported Utilization by School Districts of Educational Consultants on Mexican-American Affairs in Selected Southwestern States During School Year 1968–69

Category	Districts reporting Mexican-American enrollment of less than 23%		Districts reporting Mexican-American enrollment of 24–50%		Districts reporting Mexican-American enrollment in excess of 50%		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No consultants employed	182	78.11	130	73.03	93	80.17	405	76.85
Consultants employed 1 to 4 days	28	12.02	22	12.36	11	9.48	61	11.57
Consultants employed 5 to 10 days	9	3.86	14	7.87	4	3.45	27	5.12
Consultants employed more than 10 days	14	6.01	12	6.74	8	6.90	34	6.45
TOTAL	233	100.00	178	100.00	116	100.00	527	99.99

SOURCE: U.S. Commission on Civil Rights, "Mexican-American Education Study" (1969).

TABLE 36.—School Districts Reporting No Employment of Educational Consultants on Mexican-American Affairs by State, School Year 1968–69

State	Percent of all school districts reporting no consultants employed	Percent of school districts with Mexican-American enrollment of 50 percent or more reporting no consultants employed
Arizona	81.40	71.43
California	65.64	71.43
Colorado	77.14	66.66
New Mexico	84.21	94.11
Texas	85.48	81.97

SOURCE: U.S. Commission on Civil Rights, "Mexican-American Education Study" (1969).

Educational Levels of Staff

Tables 37 and 38 present the educational completion levels for selected professionals in selected categories at the elementary and secondary levels for schools enrolling a small proportion, medium proportion, and high proportion of Spanish-surnamed pupils.[8] The data for elementary schools in table 37 and those for secondary schools in table 38 reveal that the patterns are about the same at both school levels:

- At both levels, schools enrolling a low proportion (23 percent or less) of Spanish-speaking children have the highest proportion of faculty and staff with master's degrees or higher.
- Schools enrolling a low proportion of Spanish-surnamed pupils also have the highest proportion of faculty and staff with bachelor's degrees.
- Schools enrolling a high proportion (50 percent or more) of Spanish-speaking pupils have the highest proportion of faculty and staff with no college degree.

The data from the various States generally present the same trends as the overall data cited above. There are a few variations at the State level. For example, in the study sample, the secondary schools in Arizona and Colorado did not report any professionals with master's or higher degrees employed in schools enrolling more than 50 percent Spanish-surnamed pupils. Elementary schools in New Mexico reported the highest proportion of schools with 50 percent or more Spanish-surnamed enrollment employing personnel with master's or higher degrees.

Data presented here suggest that schools with high percentages of Mexican-Americans employ a disproportionate percentage of poorly trained teachers. In 1968, the Governor's Committee on Public School Education in Texas found a strong relationship between the proportion of Spanish-surnamed persons in the population and employment of teachers without bachelor's degrees.[9] In schools serving Mexican-Americans, the shortages of trained teachers and staff continue. Teachers move to other schools in search of better salaries and better living and working conditions. The National Advisory Committee on Mexican-American Education has recommended the training of 100,000 bilingual-bicultural teachers and administrators to meet the needs of schools enrolling Mexican-American students.[10]

The Bilingual Education Program is designed to meet the special educational needs of children who have limited English-speaking ability, who come from environments where the dominant language is one other than English, and who come from low-income families. It is intended that children participating in this program will develop greater competence in English, become more proficient in their dominant language, and profit from increased educational opportunity. Though the title VII, Elementary and Secondary Education Act program affirms the primary importance of English, it also recognizes that the use of the children's mother tongue in school can have a beneficial effect upon their education. Instructional use of the mother tongue can help to prevent retardation in school performance until sufficient command of English is attained. Moreover, the development of literacy in the mother tongue as well as in English should result in more broadly educated adults. Bilingual education is the use of two languages, one of which is English, as mediums of instruction for the same pupil population in a well-organized program which encompasses part or all of the curriculum and includes the study of the history and culture associated with the mother tongue. A complete program develops and maintains the children's self-esteem and a legitimate pride in both cultures.

TABLE 37.—Number and Percent of Selected Professionals Reporting Higher Education Degrees In Selected Elementary Schools With Low, Moderate, and High Proportion Enrollment of Spanish-Speaking Pupils

State	Reporting Ph.D. or M.A. Degree								Reporting B.A. Degree								No Degrees Reported							
	Under 23%		24–50%		50–100%		Total		Under 23%		24–50%		50–100%		Total		Under 23%		24–50%		50–100%		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona	163	46.31	92	26.14	97	27.56	352	100.01	287	37.13	253	32.73	233	30.14	773	100.00	4	33.33	5	41.67	3	25.00	12	100.00
California	729	49.83	509	34.79	225	15.38	1,463	100.00	3,916	51.20	2,446	31.98	1,286	16.81	7,648	99.99	74	41.57	59	33.15	45	25.28	178	100.00
Colorado	61	27.35	66	29.60	96	43.05	223	100.00	194	27.09	277	38,69	245	34.22	716	100.00	2	16.67	1	8.33	9	75.00	12	100.00
New Mexico	80	22.04	91	25.07	192	52.89	363	100.00	225	25.77	154	17.64	494	56.59	873	100.00	2	33.33	0	0.00	4	66.67	6	100.00
Texas	344	24.16	386	27.11	694	48.74	1,424	100.01	816	20.51	1,094	27.50	2,068	51.99	3,978	100.00	23	12.04	28	14.66	140	73.30	191	100.00
TOTAL	1,377	36.00	1,114	29.91	1,304	34.09	3,825	100.00	5,438	38.88	4,224	30.20	4,326	30.93	13,988	100.01	105	26.32	93	23.31	201	50.38	399	100.01

SOURCE: U.S. Commission on Civil Rights, "Mexican-American Education Study" (1969).

TABLE 38.—Number and Percent of Selected Professionals Reporting Higher Education Degrees in Selected Secondary Schools With Low, Moderate, and High Proportion Enrollment of Spanish-Speaking Pupils

State	Reporting Ph.D. or M.A. Degree								Reporting B.A. Degree								No Degrees Reported							
	Under 23%		24–50%		50–100%		Total		Under 23%		24–50%		50–100%		Total		Under 23%		24–50%		50–100%		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arizona	163	38.81	257	61.19	0	0.00	420	100.00	82	44.09	96	51.61	8	4.30	186	100.00	5	17.24	18	62.07	6	20.69	29	100.00
California	1,121	56.33	659	33.12	210	10.55	1,990	100.00	1,744	54.33	1,025	31.93	441	13.74	3,210	100.00	36	55.38	6	9.23	23	35.38	65	99.99
Colorado	224	61.88	138	38.12	0	0.00	362	100.00	233	56.55	179	43.45	0	0.00	412	100.00	2	100.00	0	0.00	0	0.00	2	100.00
New Mexico	159	36.22	161	36.67	119	27.11	439	100.00	95	22.25	198	46.37	134	31.38	427	100.00	0	0.00	7	100.00	0	0.00	7	100.00
Texas	384	48.30	190	23.90	221	27.80	795	100.00	631	37.38	414	24.53	643	38.09	1,688	100.00	42	54.55	15	19.48	20	25.97	77	100.00
TOTAL	2,051	51.20	1,405	35.05	550	13.73	4,006	99.98	2,785	47.02	1,912	32.28	1,226	20.70	5,923	100.00	85	47.22	46	25.55	49	27.22	180	99.99

SOURCE: U.S. Commission on Civil Rights, "Mexican-American Education Study" (1969).

Implications for the Future

Under the State Grants Program (part B–2 of EPDA), all five Southwestern States with high proportions of Mexican-Americans sponsored programs to train aides and teachers working in predominantly Mexican-American schools. The number of those being trained varies but the percent of Mexican-Americans being trained is almost the same for the following States. For example, Arizona offered training programs for only 49 staff members for Mexican-American schools out of a Mexican-American population of 194,000, while at the other extreme, California trained about 360 persons, out of a population of 1,426,000 Mexican-Americans.

Similarly, training provided under parts C and D of EPDA varied considerably from State to State. The data in tables 39 and 40 suggest that not all States attach the same priority to staff development in Mexican-American school settings.

Other federally assisted training projects have been conducted across the country. For example, Thomas Carter reports an institute for teachers of the educationally deprived in Texas designed to modify teachers' perceptions of Mexican-American children and their basic attitudes toward the children.[11] He also claims that almost every educator interviewed during his study commented that some form of special training, either preservice or inservice, was useful for teaching Mexican-American children. This suggests many possibilities, especially in terms of inservice training programs.

Table 39.—State Grants Projects Under the Provisions of EPDA, part B–2—Training Teachers and Aides for Mexican–American Schools, Fiscal Year 1969

State	No. of projects	Allocation	No. trained Teachers	No. trained Aides
Texas	2	$205,766	147	15
New Mexico	5	437,386	80	217
Arizona	5	520,233	0	49
Colorado	2	152,832	60	0
California	14	590,338	188	175
Total	28	$1,438,555	475	456

A basic question is whether Mexican-American educators should be used exclusively in Mexican-American schools. Carter noted that this tends to reduce the Mexican-American children's contacts with Anglos. Some Mexican-American teachers have little in common with the poor working-class Mexican-American students.[12] Others hold the opinion that Mexican-American teachers and staff provide the much needed role models for Mexican-American students and generally are more successful with these students. As a general rule, Mexican-American teachers:

Table 40.—Funds Allocated to and Personnel Trained in Selected Southwestern States Under the Provisions of EPDA, parts C and D

State	Funds allocated in Fiscal year 1969 (thousands of dollars)	Number of personnel trained [1]
California	$1,166	[2] 361
Colorado	11	21
New Mexico	329	63
Texas	623	417
Arizona	54	30

[1] It should be noted that these figures do not reflect the differences in programs for each State. For example, personnel varied by State from teachers, superintendents, and administrators to aides. All but seven projects recruited participants specifically from Mexican-American minority groups. Also, the training time varied in the States from 6 to 51 weeks.

[2] Incomplete as all figures were not available.

- Are sought by districts that have high Mexican-American populations.
- Are not necessarily employed in numbers proportionate to the Mexican-American population in the schools in which they teach.
- Tend to be concentrated at the elementary level.

In any case, the availability of trained, educated, and competent Mexican-American teachers is insufficient. Carter found very few Mexican-American administrators except in districts which are wholly Mexican-American. In these districts, Mexican-American administrators were found at all levels. In Anglo-controlled districts, they are generally placed in low-level positions.

The low college enrollments of Mexican-Americans represent a serious problem. To a large degree, efforts to correct this situation must start at the elementary level; however, some attention must be paid to recruiting approaches. Patrick McNamara, at the University of Texas at El Paso, noted that Mexican-Americans in Texas high schools have been the target for recruitment of universities from all over the United States—a response to the miniscule percentages of Mexican-Americans in the colleges and universities. He claims the California universities make special efforts to recruit Mexican-American students from Texas.[13] If this kind of recruitment is conducted, it would be of great importance to find out where and how it is done, and how successful it has been. In evaluating his own recruiting program, McNamara points out that 30 percent of the 10,500 students at the University of Texas at El Paso are Mexican-Americans although the dropout rate is considerable. In the fall of 1969, the percentages of Mexican-Americans at the various levels were:

University of Texas at El Paso

Freshman year—36 percent
Sophomore year—32 percent
Junior year—28 percent
Senior year—24 percent
Graduate students—22 percent[14]

There is an obvious lack of "hard data" concerning Mexican-Americans in the education professions. Except for the study by the U.S. Civil Rights Commission, most information is based on 1960 census data. Since that time alone, an estimated 40,000 immigrants have come from Mexico each year.[15] In May 1967, it was estimated that there were more than 1.5 million children with Spanish surnames in the five southwestern States. Nearly all of these were Mexican-American.[16]

Attention has been focused on requirements for Mexican-American teachers, and changes within the schools which will dictate changes in staffing patterns. Pressure for change is coming from various groups. Mexican-American groups, with support from increasing numbers of Anglo educators, are pressing for a variety of changes in the schools. They ask for more research on bilingual and bicultural education, improved and more relevant training for teachers who will instruct Mexican-American students, and development of new teaching materials. Various groups are urging the recruitment of more Spanish-speaking teachers and revision of certification requirements. They ask that existing ability tests be reviewed for cultural bias, culture free tests be developed, and that vocational education programs be evaluated and brought up to date. Some claim the Upward Bound program, designed to recruit and help minority youngsters into college, has not been entirely effective in reaching Mexican-Americans. However, according to the U.S. Office of Economic Opportunity, about 9.4 percent of the persons served by the program in 1969 were Mexican-Americans.

Assuming a somewhat similar admissions pattern over the last 4 years, this shows that about one-third of the original students drop out before graduation. Although this is slightly lower than average according to available figures, it is still a loss of college-trained Mexican-American students. The University of Arizona reported that for every one Mexican-American who obtained a degree, four others dropped out or withdrew. This high dropout rate suggests that much evaluation is needed of recruitment techniques and general program offerings.

Increased political participation by Mexican-Americans may lead to an increase in the number of Mexican-Americans in the education professions. The Association of Mexican-American Educators, the first organization of Mexican-American teachers, was started in Los Angeles a few years ago. These kinds of organizations can provide leadership for change in the education community.

As noted earlier, discrimination is a major factor hindering Mexican-Americans in education as well as in society as a whole. The Department of Health, Education, and Welfare recently notified school districts where "language barriers discriminate against Spanish-surnamed students (and other national origin minorities) that such barriers must be removed." The order, issued in May 1970, states that where inability to speak and understand the English language excludes children from effectively participating in a school district's educational program, the district must take positive steps to correct the language deficiency in order to open the program to these students. In addition, school districts must not assign these students to classes for the mentally retarded, as had been done on many occasions in the past, on the basis of criteria which essentially measure or evaluate English language skills. Also districts must not deny minority group children access to college preparatory courses because of their lack of English language skills.

The order adds that any ability grouping or tracking system used by the school system to deal with the special language skill needs of these children must be designed to meet these needs as soon as possible and must not operate as an educational dead end or permanent track. School districts also have the responsibility to insure that parents of these children are notified of school activities which are called to the attention of other parents. Such notices may have to be provided in a language other than English.

Generally, educators consider the Spanish language background of the Mexican-American as a major obstacle. Because of this analysis, the complex problems of educating Mexican-Americans have been given the simplistic answer, "Make the Mexican-Americans functional in English and the educational problem will be solved." This concept was supported by constitutional provisions and legislative acts in many of the States which required classroom instruction in English only, and this was rigorously enforced in most districts. Many school officials by loose construction of these prohibitions, extended the English-only regulation to all school activities. Within the past 5 years, most States have repealed or modified restrictions on classroom instruction in English.

When "linguistic" techniques to teach second languages, e.g., Teaching English as a Second Language (TESL), were introduced into the Southwest, they acquired particular momentum. These techniques and others were looked upon as panaceas. However, 5, 6, or 8 years after these approaches were instituted to teach reading and English to Spanish-speakers, the dropout rates have not decreased nor have the achievement levels risen among Mexican-Americans.

Many Mexican-American children have very little language development in either English or Spanish. The problem then becomes one of helping them to develop a *language ability* which will enable them to become literate in Spanish and in English. This recognition destroys a prevalent misconception regarding the relative strengths of the languages that a child possesses. Often it is assumed that because the Mexican-American child generally comes from a Spanish-speaking home, his language strength is in Spanish. All too often, this is not the case. A Civil Rights Commission Survey indicated that 51 percent of Mexican-American children are as functional in English as average Anglo first-graders. When one considers the influence of such things as television, association with bilingual parents and peers, or perhaps with monolingual English-speaking peers, and the general tone of urbanism, it is obvious why large numbers of Mexican-American children come to school with English as the stronger language. This is not to say that the language problem of the Mexican-American should be dismissed. Instead, it must be recognized that language development is just as essential for the Mexican-American as it is for the Anglo-American or any other child with an English-speaking background.

There are a variety of approaches worthy of experimentation. Rather than viewing the culture of Mexican-American children as a handicap, the schools should build on it. There should be more effective programs, greater utilization of aides, and use of techniques such as youth-tutoring-youth which have proven effective in other settings. All are worth trying. Of significance for the development of effective learning programs for Mexican-Americans is the rise of Mexican-American student groups in colleges, universities, and high schools. These groups have developed ethnic study programs and have urged that inservice teacher training projects emphasize preparation in cultural heritage.

Another obstacle, however, for educating Mexican-Americans is the lack of teaching materials built on Mexican-American heritage that can provide the child with motivation and stimulation in the subject fields and the absence of any major curriculum materials to assist teachers in using available materials. This obstacle and others must be removed before the problem of adequate training of teachers for Mexican-American children can be solved.

The Bureau of Educational Personnel Development has established an Advisory Committee of 30 Spanish-speaking professional and community people who advise on program direction and development for bilingual and bicultural students and assist in educational personnel project development and support. This is a major step forward in involving the Spanish-speaking community in program direction in the Office of Education.

The primary outcome of this effort will be the development of a pool of educational leadership of both Mexican-Americans and non-Mexican-Americans who are in tune with the Mexican-American culture and the problems associated with discrimination, neglect, and cultural and linguistic isolation which has done much to destroy the educational attainment of Mexican-Americans in the past.

NOTES

[1] Mexican-Americans are a heterogeneous group. However, for purposes of this chapter, the term "Mexican-American" is adapted from the definition used by Edward Casavantes in "Pride and Prejudice: A Mexican-American Dilemma," *Civil Rights Digest,* 3:24 (Winter, 1970). Mexican-Americans are people who have or whose ancestors have come from Mexico, or from Spain via Mexico, who may speak Spanish, and who are usually visibly distinguishable as Mexican-Americans. The terms Spanish-surnamed, Spanish-speaking, and Mexican-American are used interchangeably throughout this chapter.

[2] U.S. Commission on Civil Rights, *The Mexican-American* (Washington, D. C.: Government Printing Office, 1968), pp. 27–28.

[3] Armando Rodriguez, "Education for the Spanish-Speaking, Manana in Motion," *The National Elementary Principal,* 49:52 (February 1970).

[4] Charles A. Ericksen, "Uprising in the Barrios," *American Education,* 4:30 (November 1968).

[5] Charles B. Brussell, *Disadvantaged Mexican-American Children and Early Educational Experience* (Austin, Texas: Southwest Educational Development Corporation, 1968), p. 33.

[6] Social, Educational Research and Development, Inc., *Final Report: An Identification and Analysis of Effective Secondary Level Vocational Programs for the Disadvantaged* (Contract No. OEC-0-8-089015-3344 (010), Office of Program Planning and Evaluation, U. S. Office of Education, December 1968), 305 pp.

[7] Mexican-American Education Study conducted in 1969 by the U.S. Commission on Civil Rights. Dr. Henry Ramirez, Chief, Mexican-American Studies Division, who directed the study, and his staff provided technical assistance and statistical data from the survey for this section.

[8] The low proportion refers to schools enrolling 23 percent or below Spanish-speaking students; the medium proportion consists of those schools enrolling 24-50 percent Spanish-speaking pupils, and the high proportion consists of schools enrolling 50 percent or more Spanish-speaking students.

[9] Thomas P. Carter, *Mexican Americans in School: A History of Educational Neglect.* (New York: College Entrance Examination Board, 1970), p. 126.

[10] Rodriguez, *op. cit.,* p. 55.

[11] Carter, *op. cit.,* p. 181.

[12] Carter, *op. cit.,* p. 177.

[13] Patrick H. McNamara, *Some Factors Associated with Differential Grade Performance of Mexican-American and Non Mexican-American College Students* (paper presented at annual meeting of the Southwestern Social Science Association, Dallas, Texas, March 1970), p. 9 (mimeographed).

[14] *Ibid.,* p. 2.

[15] U.S. Commission on Civil Rights, *op. cit.,* p. 11.

[16] Joseph Stocker, "Se Habla Espanol," *American Education,* 3:17 (May 1967).

CHAPTER 5

The 2-Year College and the New Student

A major priority for American education is to provide the youth of this Nation with the opportunity for at least 2 years of education beyond high school. This goal is rapidly being realized through the phenomenal growth of various types of 2-year colleges, such as public community colleges, university branches, technical institutes, and private junior colleges. Of these, the community colleges are by far the most numerous; in 1968 there were 739, enrolling some 1,800,000 students.

For the most part, the community colleges are "open door" institutions in that they accept all high school graduates, as well as older youth and adults without diplomas who can profit by their programs. They attract a highly diversified group of students, including a substantial number of individuals from minority groups, low-income families, or educationally disadvantaged backgrounds. In this chapter, we will refer to these young people as "new" students. These students are also served by the various public vocational and technical schools and, to a lesser extent, by the university centers as well. However, the universities are less likely to enroll large numbers of these students since they tend to be more selective, more expensive, and are frequently located outside urban areas.

As might be expected, the 2-year colleges claim both the willingness and ability to serve students whose educational and cultural backgrounds pose special problems of assimilation, identification, and achievement. And while these institutions have achieved considerable success, they still encounter problems in bridging the gap between the commitment to such goals and their fulfillment. The problems stem from a variety of factors, three of which are central. The main difficulty lies in the enormous range of student deficiencies to be overcome and in the lack of adequate information about the motivational and learning patterns of disadvantaged students. Thus, in their effort to develop programs for these students, 2-year schools and colleges are charting new directions and are still dependent both upon the research and experience of others and upon their own continuing ability to conceptualize, test, and evaluate new approaches.

Another obstacle is the lack of widespread public understanding of the problems involved in training the new students and the unwillingness of government at all levels to give adequate support to this effort. Effective remedial and developmental programs are expensive because they normally require a low faculty-student ratio. Therefore, unless an institution can give high priority to programs for these students, effectiveness in this area will be limited. Finally, the success of an institution's efforts to serve these students is totally dependent upon its staff—teachers, student personnel workers, and administrators. The quality of staff is of great importance, for without willingness, dedication, and specialized knowledge and skills, no program can succeed. This chapter is primarily devoted to the preparation of professional personnel for the demanding task of teaching the new students.

Students Served by the 2-Year Colleges

The problems involved in staffing 2-year colleges are best understood in the context of the types of students enrolled in these institutions. The following discussion pertains primarily to students in public community colleges, because these institutions not only enroll the largest proportion of 2-year college students but also attract a more heterogeneous student body.

Several generalizations may be made about students who attend community colleges on the basis of ongoing and recently completed studies sponsored by the Bureau of Social Science Research, (with USOE. support), the Center for Research and Development in Higher Education at Berkeley,* the American Council on Education, Project Talent, the Educational Testing Service, and the American College Testing Program:

(1) Community college students represent all levels of academic ability. Many studies confirm the tendency for 2-year institutions of all types, and particularly the community colleges, to draw heavily from all quartiles of measured performance on standard academic tests. Typical are the findings of a recent followup of 1966 high school graduates in California, Illinois, Massachusetts, and North Carolina, in which D. Tillery (1970) found that of the more than 6,600 graduates who entered 2-year colleges, 19 percent came from the highest ability quartile, 30 percent from the second, 32 percent from the third, and 19 percent from the lowest. A similar distribution is found with respect to the manner in which community college students rank in their high school graduating classes. For example, L. Medsker and J. Trent (1965) observed that, of a large sample of high school graduates entering public 2-year colleges, the distribution by quintiles showed that quintiles I through V were 21, 21, 20, 15, and 11 percent, respectively. Information was not available on 12 percent of the sample.

Such findings are significant for two reasons. First, they dispel the myth that only the less able attend community colleges; second, they confirm the fact that the community college does serve a very large number of students whose scores on standard academic tests fall below the average. Indeed, Tillerys' distributions show that exactly half the students in the sample who entered public 2-year colleges fall in this category.

(2) Community college students vary tremendously when tested for "intellectual predisposition." Tillery found that slightly more than half the high school graduates in his sample who entered community colleges fell below the average and that 21 percent were from the lowest quartile on scales measuring this.

(3) A high proportion of community college students are children of parents with little education and low socioeconomic backgrounds. Preliminary data from a study conducted by the Bureau of Social Science Research reveal that of nearly 6,000 junior college students surveyed in 1969, as many as 6 percent estimated their total family income during their last year of high school to be less than $3,000, and only 39 percent estimated their income to be in excess of $10,000. In the technical institutes and vocational-technical centers included in the study, an even higher percentage of the students came from families earning less than $3,000 annually, and fewer fell in the group above $10,000. Numerous studies have shown that the socioeconomic level of students attending community colleges, as measured by father's occupation, is considerably below that of those attending universities. A large proportion of these students come from homes in which the father is either a skilled craftsman, a clerical or sales worker, a semiskilled worker, or a laborer. One recent study revealed that only one-fifth were children of proprietors, managers, or officials. Tillery found that, of those students in his four-State study who entered junior colleges, more than half fell at the lower end of the socioeconomic scale: 19 percent were from families that could be classified at a "low" occupational level and another 34 percent were from families in the "moderate" category.

(4) A substantial number of ethnic minority students enroll in 2-year colleges. Although this number is not as great as it might be, it is nevertheless clear that compared with other types of postsecondary educational institutions, these colleges serve a relatively higher percentage of minority students. Of the junior college students surveyed by the Bureau of Social Science Research in 1969, 10 percent reported that they came from a minority group. Interestingly enough, the proportion of such students in community colleges was higher than in any of the other types of 2-year colleges. On the basis of

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* The Center studies related to 2-year institutions include those funded by the Carnegie Corporation, the College Entrance Examination Board, and the U.S. Office of Education.

four surveys conducted from 1966 to 1968, the Carnegie Commission reports that the percentage of Negro students in public community colleges ranged from 6 to 9 percent. This fell below the percentage of Negroes in the total college-age population (about 14 percent). It is likely, however, that with the projected development of community colleges in large cities, the number of students from the ethnic minority groups enrolling in community colleges will increase substantially.

(5) Community college students tend to be relatively young, to be employed while attending school, and to be concerned about their ability to finance their education. Although the age range is great, by far the majority of these students are between 18 and 24. Between one-third and one-half hold at least a part-time job, and, as revealed by the 1969 Bureau of Social Science Research study, two-fifths are worried about their financial ability to stay in school.

This brief profile of students in community colleges reveals that large number, for one reason or another, are likely to need special attention in the educative process. The student with a poor achievement record, with probable deficiencies in basic learning skills and inadequate financial support will, regardless of color or cultural background, need teachers who understand him, who believe that he can and should be taught, and who possess the skills to teach him. If he comes from the ghetto or from a background different from that of a majority of his peers, he will require even more special attention.

Of primary importance is the development of programs which open new vistas to the student and help him establish new directions for himself. Remedial work alone will not meet the needs of these students. The concept of remediation alone is ineffectual because it often presupposes that more drill will bring students to the point where they can proceed normally. In addition, mere repetition of training which previously failed is insufficient. So long as the community college remains an open-door institution—and there is every reason to believe that it should and will remain so—the accommodation of students in need of special help will remain one of its most important tasks. Because such students will look to the 2-year colleges in increasing numbers, these colleges must be able to recruit and retain staff qualified to work with these young people.

Problems in Staffing for the New Student

The staffing problems facing the 2-year colleges are caused by the short supply of interested, trained, and available people to teach, counsel, and administer in these institutions.

Staff Attitudes and Values

A substantial number of faculty members in 2-year colleges have been recruited from secondary school systems and are therefore experienced in dealing with diverse student bodies. Others, having come from commerce and industry, are especially qualified to provide vocational training for 2-year college students. More recently, however, an increasing proportion of new faculty have been recruited from graduate school programs, usually upon completion of the master's degree. There is evidence that many in this group are not well oriented to the philosophy of the 2-year college and are inclined to identify more closely with the university with which they have recently been associated. It is also possible that, regardless of their previous experience and background, some faculty members may over time become disenchanted with the problems inherent in serving 2-year college students, or they may fall prey to the prestige syndrome and try to model the 2-year college after the university.

Evidence of disagreement on the part of staff with the generally accepted functions of the community college is apparent from a study of more than 4,000 staff members in a random sample of such institutions (Medsker and Tillery, 1970). The study revealed a high degree of assent to the idea that transfer programs and 2-year technical or semiprofessional programs are essential (table 41). With respect to the less conventional services, however, such as the preparation of workers for skilled or semiskilled jobs, or the training or retraining of adults, a large proportion of the staff classified these services as either optional or inappropriate. Noteworthy is the fact that 16 percent considered the offering of remedial courses inappropriate; another one-third thought they should be optional; and approximately half (49 percent) rated them as essential.

Staff members were also almost equally divided on the question of whether the community college should admit any high school graduate. More than one-fourth disagreed with the statement: "The junior college should offer a flexible program, unhampered by conventional notions of what constitutes higher education." As might be expected, the responses varied according to the respondent's responsibility and background. Counselors and administrators were generally more flexible than instructors in their attitudes concerning the program. Teachers of academic subjects were more traditional in their points of view than were those who taught in applied fields. And those who said that they would prefer to teach in a 4-year college or university were more likely to oppose occupational and remedial programs.

TABLE 41.—Faculty Attitudes Toward Components of the Comprehensive Junior College Program

Program component	Faculty attitudes in percent		
	Essential	Optional	Inappropriate
Technical or semiprofessional 2-year programs	85	14	1
2-year pretransfer programs of traditional college education	90	8	1
Preemployment curriculums in skilled and semiskilled jobs	50	37	11
Short-term occupational programs	21	49	26
Remedial courses for poorly prepared students	49	34	16
Preemployment or inservice training of adults	34	54	12
Retraining of technologically unemployed adults	27	54	18
General education courses for adults in traditional subjects	61	36	2
Problem-centered courses for adults	36	56	7

SOURCE: Medsker, unpublished data from study of 57 junior colleges, 1967. Approximately 1 percent nonresponses not shown.

A 1969 study conducted by the Bureau of Social Science Research of the staffs in 2-year colleges found that for all types of 2-year colleges, slightly less than one-fourth of the staff felt that the number of remedial programs should not be increased. There were, however, differences between types of 2-year institutions (table 42). The least likely group to oppose further stress on remedial programs was found in the vocational-technical centers, and the most likely group was in the university branch campuses, where 38 percent of the staff responded negatively to any suggested increase in such courses. The total sample was about equally divided on the question of whether 2-year institutions should accept *only* high school graduates. The fundamental character of the 2-year colleges is seriously challenged when as many as half of their staff members feel that it should not give a second opportunity to older youth and adults who for one reason or another dropped out of high school.

Such attitudes among staff members present obstacles to the development of programs for the new students in 2-year colleges. The need for such programs is gaining recognition, however, and administrators and planners are increasing their efforts to recruit staff members whose educational philosophy is consonant with that of the junior college. An even greater task involves ensuring that both new and old faculty members maintain such a philosophy. Both areas have implications for the initial preparation of personnel and for inservice training programs.

TABLE 42.—Opinions About the Desirability of Increasing Remedial Offerings, as Expressed by a Sample of a 2-Year College Staff (in percents)

	Total	Yes	No
Total	2,081	76.1	23.9
Junior college	1,524	76.0	24.0
Technical institute	245	77.0	23.0
Vocational-technical center	197	83.6	16.4
Branch campus	115	61.9	38.1

SOURCE: Unpublished data, Bureau of Social Science Research.

The effectiveness of staff members in 2-year colleges depends to a considerable extent on their own background and values as well as on their orientation to the special problems of dealing with the new students. Therefore, those responsible for the planning and administration of 2-year colleges must concern themselves with the task of identifying and recruiting faculty with the potential for constituting a good "fit" with the emerging responsibilities of these colleges. This task is also of major concern for the teacher training institutions, which frequently are the agencies with which prospective faculty members have their first contact.

Special problems are posed by the fact that members of the teaching profession, including those in 2-year colleges, generally come from middle-class backgrounds and adhere to the values of that class. Although a middle-class background does not necessarily render these people incapable of becoming good teachers in postsecondary institutions enrolling large numbers of economically disadvantaged students, some will inevitably be unable to identify with students whose backgrounds and experiences are foreign to theirs. Effective selection procedures are therefore essential.

Unfortunately, too few 2-year college staff members are recruited from minority groups. Of the 2,286 staff members surveyed in 1969 by the Bureau of Social Science Research, 0.4 percent were American Indian, 0.1 percent were Cuban, 0.1 percent were Mexican, 1.4 percent were Negro, 0.6 percent were Oriental, and none were Puerto Rican. Thus, only 42 staff members (1.8 percent of the sample) came from the principal minority groups. Clearly, a larger proportion of the faculty and administrators of 2-year colleges must be recruited from backgrounds similar to those of many of the students they will serve. The staff composition might profitably include some members who themselves have attended 2-year colleges as well as some who are relatively closer in age to their students so as to minimize any "generation gap" conflicts. In Medsker and Tillery's sample of 57 community colleges, however, only 28 percent of the staff members had been community college students, and only 18 percent were under 30 years of age.

Two-year colleges may also face a unique situation in the immediate future as a result of what seems to be a current oversupply of people holding the doctoral degree, many of whom may well seek positions in 2-year colleges. At pressent, less than 10 percent of faculty in community colleges hold this degree. There is no reason to assume that such persons are less able to teach junior college students, but they may need special training when they undertake this responsibility.

The question of how best to prepare staff for 2-year colleges has been a core concern throughout the history of the development of the 2-year colleges, particularly the public junior colleges. Because the junior colleges were originally associated with the public schools, and continued to be so for many years, most States at one time required that junior college teachers, counselors, and administrators be credentialed much in the same way as high school staff—normally after the completion of specified courses in professional education and, in some States, a supervised practicum experience in a junior college. These requirements were gradually relaxed, however, as the junior college became more associated with higher education than with the secondary schools. Today they have either been eliminated or drastically modified, with the consequence that there is increasing concern about whether new faculty are sufficiently oriented to the problems of teaching in junior colleges.

Most recently, the concern for improving the preparation of junior college staff through specific preservice programs has been reflected at the Federal level both by the National Defense Education Act and the Education Professions Development Act. Both acts have given voice and direction to a marked upsurge of conviction of State and local levels that adequate preparation of staff must be actively pursued if the 2-year institutions are to make good on the expectations held of them.

While no attempt is made here to summarize the various preservice programs for 2-year college personnel, it can be said that many of the major 4-year colleges and universities are developing programs to meet the needs of the 2-year colleges for classroom teachers, guidance and student personnel workers, and administrators. These vary in scope and content and include programs with degree arrangements which combine subject matter, appropriate professional courses, and/or an experience in a 2-year college. Others provide special year-long institutes, some of which grant a degree; still others offer short-term institutes, or internships during which the potential staff member receives his initial orientation in an institution followed by a carefully supervised internship in a 2-year college. The last plan naturally requires a high degree of cooperation between the 2-year colleges and the 4-year institution which conducts the program.

The points of view expressed by the sample of staff studied by the Bureau of Social Science Research (1969) yield some clues about the preparation needed if 2-year college students are to be better served. Not surprisingly, staff members gave much higher ratings to their preparation for their major assignments than they did to any preparation for those aspects of their job which involved dealing with students from other cultural backgrounds or developing course material for slow learners. Nearly 54 percent, for example, thought their preparation for serving slow learners was inadequate, compared with less than 29 percent who had the same feeling with respect to their preparation for teaching above-average students (table 43).

TABLE 43.—Adequacy of Training Received in Certain Areas As Perceived by a Sample of 2–Year College Staff (in percents)

	Number	Percent			
		None	Inadequate	Adequate	Good
Subject matter preparation for major current assignment	2,203	2.6	4.0	23.5	69.9
Understanding students from another cultural background	2,181	15.1	21.7	36.1	27.2
Preparing course material for the slow learner	2,170	21.1	32.6	33.5	12.8
Preparing course material for the above-average student	2,168	14.6	13.9	41.6	30.0
Making curriculum content relevant to student experience	2,166	11.2	13.1	42.2	33.5

SOURCE: Unpublished data, Bureau of Social Science Research.

No discussion of preservice preparation should omit reference to a new doctoral degree now frequently proposed in many quarters. This degree, most often identified as a doctorate in arts, would differ from the Ph.D. in that it would place less stress on research and more on the preparation for college teaching. Still unanswered is the question of whether such a program could and would emphasize methods, techniques, and conceptualizations which would help in the teaching of students with the handicaps of poverty and educational deprivation. Unless it does, the new degree program will not answer one of the most crucial needs of the 2-year college.

There are already more than 100,000 staff members in the public and private junior colleges alone, and the success of these institutions in meeting their emerging responsibilities to the new students will depend even more on how well they can redirect present staff to the task than on the admittedly vital preservice education of new staff.

Many observers report that present faculty do not relate well either to students with backgrounds different from their own or to new faculty who have completed programs which emphasize new ways of serving such students. Since the goal of redirection must involve itself more with change of attitudes than the mastery of procedural tasks, there is obviously no simple solution to this problem. Attitudes do not change easily, and least of all in response to ministered admonition. Ways must be found, therefore, to familiarize staff members with the subcultures from which so many of their students will come. Fortunately, many 2-year colleges throughout the country are not only initiating broadened and more socially aware inservice programs, but are also endeavoring to engage all staff members in discussions about the changing nature of society as it places new demands on 2-year institutions.

Implications for the Future

There is every evidence that the new students will be looking to postsecondary education in increasing numbers, and access to this training must be provided for them. But access means more than merely making it convenient for people to enter an educational institution, for unless there are appropriate programs and willing staff members to serve them, their chances of remaining in school are slight.

The problem, of course, is especially serious at the 2-year college level. It is estimated that approximately 70 percent of all students in 2-year colleges are in need of remedial or compensatory programs, and it is further estimated that nine out of 10 low-income students drop out before completing a program of study. This unquestionably comes about not only because there is a lack of effective remedial programs, but also because there is a dearth of teachers who care about such students and believe that they can learn. This problem will be exacerbated in junior colleges, moreover, because these institutions are destined to increase both in number and size over the foreseeable future. The Carnegie Commission on Higher Education (1970) estimates that by 1980, 1,300 junior colleges will serve as many as 4 million students.

In this process of expansion, 2-year colleges will inevitably be established in many large cities where they do not now exist, since there are now more than a dozen cities with no public junior college within the city limit. Since it is in such urban areas that great numbers of the economically depressed live, the junior college, as it expands, faces an increasing responsibility.

The growth pattern of junior colleges, while spectacular, has been uneven among the States. In 1968, the following seven States accounted for over one-third of all public community colleges: California, New York, Illinois, Michigan, Florida, Texas, and Washington. In addition to these seven "pacesetter" States, there are 14 States in which substantial growth has occurred. These are: Arizona, Georgia, Iowa, Kansas, Maryland, Massachusetts, Mississippi, Missouri, North Carolina, Ohio, Oregon, Pennsylvania, Virginia, and Wyoming. In other States a good beginning in junior college development has been made, but in at least 12 only a minor start in a community college system has taken place. Clearly the picture at the moment is mixed, but it is expected that in the next decade most of the States in which the development of junior colleges has been moderate thus far will show a rapid increase in the number of new 2-year institutions and enrollments in them.

Currently, there is widespread discussion about "open admissions" policies for all postsecondary institutions, including those that have hitherto been selective. It seems probable, however, that within public systems there will be a tendency for certain types of institutions to maintain their selectivity while others will not, so that the open admissions principle will apply more to the system than to individual institutions. To the extent that this is true, the public junior colleges and vocational schools will continue to bear the chief responsibility for serving students without the conventional academic requirements for admission to other institutions of higher education. This suggests, then, that if the junior colleges should fail in serving these students, the entire cause may be lost, and those who plan and are responsible for postsecondary institutions of this type will be held accountable.

Since the matter of identifying and preparing staff members for this task is so great, nothing less will suffice than a national effort in both preservice and inservice staff development for 2-year colleges. Thus, beginning at once, a number of agencies must become concerned with their particular role in staff development.

Role of 2-Year Colleges. The 2-year colleges will need to assume an increasing responsibility, not only for conducting certain programs on their own, but for cooperating with 4-year institutions engaged in the preparation of teachers, counselors, and administrators for the 2-year college. Possibilities for such service abound. The colleges themselves could well encourage many of their current students, particularly those who come from ethnic minority groups, to become interested in junior college work and ultimately to pursue a program toward that end. This kind of encouragement and recruiting may become one of the most useful long-term services which today's counselors and teachers in junior colleges could render. The junior colleges will also have to share a responsibility for identifying and recruiting faculty —many from ethnic minority groups—who are willing to take special programs leading to junior college employment, if need be, or if already prepared, to enter directly into such employment. In addition, the junior colleges must stand ready and willing to cooperate with teacher training institutions in providing various types of learning experiences, particularly those that offer an orientation to the problems of dealing with students who have special learning problems. The teacher training institutions cannot do the job alone; cooperation on the part of the institutions in which the trainees will seek employment is an absolute necessity.

Individual institutions obviously will need to assume a major responsibility for inservice activities, although the 4-year colleges and universities can doubtless be of more help in the future than in the past. Even with the help of the 4-year institutions, however, the 2-year colleges have to provide the stimulus, assist in the selection of the participants, and provide released time or money or both, so that staff members can participate in the functions provided for them.

The many staff members included in the study of the Bureau of Social Science Research who expressed a desire for more inservice training also indicated some preferences about the form such education should take. Table 44 shows the responses by type of activity and by type of 2-year college and indicates that of those expressing preferences for types of inservice programs, more preferred course work than any other form, although seminars and workshops were also rated relatively high. However, the fact that 25 percent of the respondents did not indicate any preference suggests that staff members do not have any well-defined ideas about how they can best be helped, and this, in turn, suggests the need for initiative on the part of institutions in working with staff to determine the best approaches to be taken. When asked about the time of year that inservice training programs should be offered, over half the sample said they should be given during the school year; 40 percent said they should be offered during the summer, some suggested both school year and summer; and a substantial number did not respond.

TABLE 44.—Preferences of Staff Members for Type of Inservice Programs (in percents)

	Total	Course-work	Seminars	Lectures	Institute	Workshop	Infield training	Other	No answer
Total	1,657	22.5	16.3	6.0	2.4	14.5	9.8	3.4	25.1
Junior college	1,180	22.4	16.9	6.8	2.8	12.9	8.6	3.6	26.0
Technical institute	211	19.1	17.6	6.4	1.3	18.1	14.3	2.2	21.0
Vocational-technical center	167	21.4	5.5	2.4	0.8	20.7	16.1	0.8	32.3
Branch campus	100	33.9	24.6	1.8	1.6	15.0	3.4	7.9	11.8

Some further clues to the role the individual institutions might play can be gleaned from the respondents' attitudes about the adequacy of various specific services within their own institutions. For example, less than one-fourth rated remedial tutorial services as above average or excellent; approximately another one-fourth rated them as average; and 35 percent rated them below average or unsatisfactory. Similarly, ratings of institutional provisions for student loans and scholarships were heavily weighted in the direction of average or below, and less than a third thought they could rank vocational or academic counseling as being "above average" or "excellent." Only one-third thought that vocation counseling was even average, and 42 percent felt that academic counseling was no more than average. Clearly, more and better trained staff will be needed if these services are to improve.

Two major factors which affect the quality of education offered are class load and class size. R.H. Garrison, in "Junior College Faculty: Issues and Problems" reported the results of a study which showed that a major problem lies in the fact that teachers have inadequate time to keep up in their own field, to develop innovations or new methods in teaching, or to do a proper job with individual students. If staff are to work effectively with the new students, consideration must be given to reasonable workloads. One means of lightening the workload of professional staff is increased use of paraprofessionals. In recent years, rising numbers of 2-year colleges have employed assistants with various levels of training. More use of such help has been made in counseling than in other areas, but it seems logical that this practice could be extended to many types of remedial and tutorial activities. Paraprofessionals can be recruited from minority groups; a special effort should be made to employ persons who understand and are in sympathy with the types of students being served. The training of such people can often be done by the 2-year colleges alone or in cooperation with 4-year colleges.

Role of Teacher Training Institutions. The teacher training institutions will inevitably bear a heavy responsibility for developing 2-year college staff members. It is not enough for them to offer the master's degree or special types of doctoral degrees to prepare teachers and counselors. They will have to use their initiative and imagination to devise special components of degree programs that will enable prospective staff to become more knowledgeable about the problems they will encounter in dealing with the new students, and more competent to meet the challenge of the task. Already, universities and junior colleges have entered into cooperative relationships to this end, and hopefully others, especially those in the major metropolitan areas, will follow their lead.

In addition, special seminars, workshops, and institutes of both short- and long-term duration will be needed not only for inservice training, but for preservice training as well. The 4-year institutions will need to share in the recruitment of those individuals, including those from minority groups, who show promise for the task of dealing with low-income students.

The Role of State Agencies. The State agencies' responsibility for staff development has not been generally recognized. These agencies include: those responsible for the operation of community college systems in States where these systems are under direct State control; State junior college boards or State boards of education that coordinate community colleges in States where responsibility for these institutions is shared between State and local governments, boards for vocational education, and statewide coordinating agencies for all of postsecondary education. In recent years, these agencies have tended to delegate the responsibility for staff to the institutions—a move that has followed the deemphasis of specific certification requirements. Now, however, with the staffing problems on the increase, these agencies can no longer avoid assuming part of the responsibility.

State agencies can help in various ways. They can emphasize the necessity for adequate preparation of staff by providing financial or other incentives, for inservice training. They can provide a financial system to support an optimum student/faculty ratio in remedial programs. They can support research on the problems of teaching the new student and evaluate such programs. Finally, they can seek to create an atmosphere in the entire system which emphasizes service to the new students which, hopefully, may have widespread influence on the public at large as well as on legislators, board members, and State officials who provide the funds for these institutions. In short, the role of the State agencies is to provide leadership which will enable individual institutions to discharge their obligations to the new students.

The Role of the Federal Government. In conjunction with the efforts of teacher training institutions and State agencies, the Federal Government exercises leadership in the following ways:

(1) Through the Higher Education Personnel Training Program (EPDA, part E), the Federal Government supports fellowship and short-term training for higher education personnel. The majority of the fiscal year 1969 fellowship programs supported the training of junior college teachers, while 15 programs prepared teachers specifically to work with low-income students. Many of the short-term training programs also focus on junior college personnel; during fiscal year 1969, about one-third were specifically directed to serving low-income students.

(2) The Strengthening Developing Institutions Program (under title III of ESEA) provides support to a number of junior colleges which fall into the category of developing institutions of higher education. In fiscal years 1969 and 1970, junior colleges received $6.9 million under this program; an additional $2 million is proposed for fiscal year 1971. A variety of staff development activities are supported under this program including summer and academic year study projects, special staff development institutes, and professional conferences and meetings.

(3) The proposed administration bill, HR 16621, includes title VII, the Career Education Act. This bill proposes a fiscal year 1972 appropriation of $100 million for the development of career education programs, particularly for community and junior colleges. One of the preliminary steps in the development of programs under this act would be the preparation of State plans in career education by commissions composed of community and junior college representatives, as well as members of State boards of vocational education, the U.S. Office of Economic Opportunity, the U.S. Department of Labor, and others.

Conclusion

The years immediately ahead may well determine the viability of 2-year institutions for serving urban communities in which so many poor families reside. These institutions are not yet fully performing this task; despite some outstanding examples, there is considerable unevenness in quantity and quality of offerings. Recognizing that one of the most important elements in an institution's ability to serve low-income students is the availability of faculty members, counselors, and administrators willing and qualified to serve these students, a major thrust must now be made to prepare new staff members who come from a variety of backgrounds and to train current staff for this all important role.

CHAPTER 6

The Need for Vocational and Technical Educational Personnel

This Nation is committed to the three primary economic goals of growth, full employment, and price stability. In the face of rapidly and continually changing product demand and technology, a prerequisite to the fulfillment of these goals is a commitment to the development, maintenance, and utilization of the skills and abilities of the labor force. An important vehicle for achieving these objectives is obviously the educational system in this country and vocational education, broadly defined, is an integral, and increasingly important, component of this educational system.

Vocational education could, and should, provide a large portion of our youth with the best possible preparation for existing and future employment opportunities. It should also provide training for the physically and mentally handicapped and remedial training for those whose skills have become obsolete. In addition, it must be the vehicle for updating skills throughout the working life of an individual.

The extent of the future commitment that vocational education will require cannot be minimized. It is estimated that, by 1975, despite a doubling of college enrollment, approximately three-fourths of the civilian labor force will have had 4 years of high school education or less.[1]* This means that if the educational system is adequately to serve the country, 75 percent of the work force by 1975 will have been prepared to enter the labor market through secondary education. Legislation in recent years, particularly the Vocational Education Act of 1963, as amended in 1968, and the Education Professions Development Act of 1967, reaffirms the national commitment to make higher quality vocational education available to a larger group of persons.

In addition, the 1968 Amendments to the 1963 Vocational Education Act greatly extended this commitment in at least one area. The legislation permitted funds to be utilized for special programs for the handicapped and the economically disadvantaged. The 1968 amendments eliminated the permissive character of this provision and required the States to earmark 15 percent of the basic Federal allotment for postsecondary education, 15 percent for special programs for the economically disadvantaged, and 10 percent for special programs for the handicapped.[2] These latter two categories, the economically disadvantaged and handicapped, are often referred to under the combined category of "special needs." The ability to achieve the goals of expansion and improvement of vocational education with increased emphasis on special needs will depend to a great extent upon both the availability and quality of vocational education personnel.

This chapter addresses itself to a number of questions regarding the future staffing in vocational education. First, what new directions will vocational-technical education take during the 1970's? Second, given the nature of vocational-technical education, what will be the manpower (or personnel) requirements? Third, to what extent will these requirements be met? Fourth, will there be a gap between the requirements (demand) and the available resources (supply), and if so, what action can be taken to close this gap? Fifth, what are the priorities and research needs in the training and employment of personnel in the area of vocational education?

Because of the limitations of time and resources this chapter relies heavily on existing data and materials. No original data were obtained. There was heavy reliance on published reports and the views of various consultants and other persons in the area of vocational-technical education.

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* The footnotes referred to in the text are listed at end of chapter.

Vocational Education in the Next Decade

Vocational education defined in its broadest sense would encompass all of the occupational training programs in the United States, both public and private. In recent years there has been a rapid growth and multiplication of manpower programs. The Federal Government's activities in this field are authorized under numerous legislative enactments and are generally referred to as the Federal Manpower Development Programs. Under these laws, job-oriented education and training are conducted under programs that vary widely in scope, objectives, content, and methods of administration.

In addition to federally reimbursable vocational education under the Vocational Education Act, these programs include both institutional and on-the-job training programs under the Manpower Development and Training Act, the JOBS Program, Neighborhood Youth Corps, Operation Mainstream, the Concentrated Employment Program and others. There also exist sizeable but unenumerated private on-the-job training activities and private vocational schools.

The definition of vocational education employed here will be restricted to federally supported vocational education under the current vocational education legislation and vocational education administered through private schools.

Vocational education in the 1970's will be influenced by its past philosophy and subjected to the influences of the labor market. Therefore, before discussing the future direction of vocational education, it is essential to summarize briefly its development to date and to explore manpower trends.

Growth and Change in Vocational Education

Federally supported vocational-technical education comprises the bulk of this country's training programs designed to reduce unemployment and occupational shortages. Since 1917, with the passage of the Smith-Hughes Act, the State-Federal programs of vocational education have been developed on a grant-in-aid basis to States in an effort to promote vocational training. Although the original legislation specified only agriculture, home economics, and industrial trades as the training programs eligible for partial Federal reimbursement, subsequent legislation increased the occupational categories to include distributive occupations, practical nurse training, and other health occupations, as well as the training of technicians.

The Vocational Education Act of 1963 continued the previous authorizations in the above-mentioned occupations and added business and office occupations to the list. More importantly, however, this law permitted States to transfer Federal funds from one occupational category to another and offered additional funds for the training of specified population groups. The groups named were high school youth, post high school youth, adults enrolled in full-time instruction, and persons with special needs. Tables 45 and 46 which include the latest available data, show the changing pattern of enrollment since the passage of the act of 1963.

TABLE 45.—Enrollments in Federally Reimbursable Vocational–Technical Education Programs, by Population Group, 1963–69

Population group	1963	1964	1965	1966	1967	1968	1969	Percentage change 1963–69
Totals	4,217,198	4,566,390	5,340,611	6,070,059	7,047,501	7,533,936	7,979,366	89.2
Secondary schools	1,950,016	2,140,756	2,819,250	3,048,248	3,532,823	3,842,896	4,079,395	109.2
Postsecondary schools	144,060	170,835	207,201	442,097	499,906	592,970	706,085	390.1
Adults	2,123,122	2,254,799	2,378,522	2,503,712	2,941,109	2,987,070	3,050,466	43.7
Persons with special needs			25,638	49,002	73,663	111,000	143,420	459.4[2]
				(53,154)[1]	(92,925)[1]	(107,942)	(114,274)	171.4[3]

[1] Special needs students enrolled in regular programs.
[2] Percentage change 1965 to 1969.
[3] Percentage change 1966 to 1969.
SOURCE: Computed from the U.S. Office of Education, *Vocational and Technical Education, Annual Report*, 1967, p. 4 and unpublished data.

TABLE 46.—Relative Distribution of Enrollments in Federally Reimbursable Vocational–Technical Educational Programs, 1963–69

Population group	1963	1964	1965	1966	1967	1968	1969
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Secondary schools	46.2	46.9	51.9	50.2	50.1	51.0	51.1
Postsecondary schools	3.4	3.7	3.8	7.3	7.1	7.9	8.9
Adults	50.3	49.4	43.8	41.7	41.7	39.6	38.2
Persons with special needs			0.5	0.8	1.1	1.5	1.8
				(0.9)[1]	(1.3)[1]	(1.4)[1]	(1.8)[1]

[1] Special needs students enrolled in regular programs.

SOURCE: U.S. Office of Education, *Vocational and Technical Education, Annual Report*, 1967, p. 4 and unpublished data.

These tables indicate that the most rapid relative growth was in postsecondary vocational education and vocational services for persons with special needs. From 1963 to 1969 postsecondary enrollment increased by nearly 400 percent. Enrollment in specific special needs programs increased by about 460 percent from 1965 to 1969, the large percentage increase reflecting the low base of 1965. Further evidence of the increasing trend toward educating the economically disadvantaged is revealed in the increase in all special needs enrollments (those enrolled in special programs plus those enrolled in regular programs) of 63.1 percent from 1968 to 1969, whereas the relative increase in total enrollments was only 5.9 percent.

Despite the relative advances of special needs programs and postsecondary enrollments, secondary school enrollments and adult enrollments still represent about 90 percent of the total. The large relative increases in the area of special needs are somewhat misleading since all special needs enrollments represents only 3.6 percent of total enrollment. Clearly there must be considerable improvement if the present status of educating those with special needs is to be consistent with current Congressional intent.

Federal support for vocational education currently focuses on six broad occupational areas:

(1) *Office Education.* The greatest change in vocational enrollment has resulted from the addition of business and office education to the list of federally assisted vocational programs. Enrollments in these areas increased from 731,000 in 1965 to 1,835,124, or 23 percent of the total in all fields, in 1969. In addition to standard secretarial training, courses are offered in data processing, communications, and personnel work.

(2) *Distributive Education.* This program prepares students for careers in marketing, merchandising, and related wholesale and retail occupations. Enrollments in this program have increased from 333,000 in 1965 to 563,431 in 1969.

(3) *Trade and Industrial Occupations.* Enrollments in this program, which prepares students for work in skilled occupations in industry, increased by 55 percent, from 1.1 to 1.7 million between 1965 and 1969. Course offerings range from the more traditional fields of carpentry and plumbing to new occupations in law enforcement and atomic energy.

(4) *Technical Education.* Technical education chiefly prepares students for occupations in engineering and science-related specialties. Usually offered at the postsecondary level, enrollments have increased from 226,000 in 1965 to 315,311 in 1969. Recent developments in the area include the introduction of courses in the fields of office work, health fields, and home economics.

(5) *Agricultural Education.* The sharp decline in farm employment has been reflected in a marked shift in emphasis in secondary vocational agriculture courses. Once directed mainly at the improvement of farm education, vocational agriculture is increasingly being directed to off-farm occupations such as horticulture, farm management, agricultural technology, conservation, and farm services and supplies.

Enrollment in production agriculture dropped by almost one-fourth while enrollment in off-farm agriculture almost tripled, thus accounting for nearly 25 percent of all agriculture enrollments.

Total enrollments in vocational agriculture courses reached a peak of 935,000 in 1967 and dropped to 850,705 in 1969. During the same period, adult enrollments declined from 413,000 to 290,336 and postsecondary enrollment increased from 8,000 to 15,816.

(6) *Health Occupations Education.* Federally reimbursable vocational education is the largest producer of manpower in the health field below the baccalaureate level, enrolling 175,101 in 1969, nearly three times the 1965 enrollment. The largest enrollments have been in practical nurse, nurse aide, associate degree nurse, and dental assistant programs. New curriculums in this field include programs for jobs as medical laboratory assistant, dental hygienist, medical X-ray technician and surgical technician.

In addition to federally supported vocational education, there is a substantial amount of vocational training being conducted by private schools. In 1967 approximately 20 percent of the total vocational enrollment was in private schools. Available evidence suggests that this private vocational education covers a wide range of fields. One study conducted in Massachusetts shows that the private schools include trade schools, business colleges, beautician schools, health occupations schools, technical institutes, correspondence schools, barbers colleges, and others.[3]

The Massachusetts study further indicated that most private vocational schools are small, with enrollments of under 100 students and concluded that small classes and individualized instruction make many private schools an ideal environment for training both students who failed in secondary schools and persons with a variety of handicaps.

The existing evidence seems to suggest that public secondary schools have been deficient in educating their students and in many cases the private vocational schools have attempted to correct the deficiency. According to one study, private vocational schools have been in the forefront in training the economically disadvantaged, though their efforts are not as effective as they might be, since they operate almost exclusively at the postsecondary level.[4] The obvious intent of the 1968 amendments to the Vocational Education Act is improvement in the education of the economically disadvantaged. However, until the full intent of the amendments are realized (and even after) private vocational education will continue to play a major role in educating those youths with "special needs."

Implications of Manpower Trends

The basic purpose of vocational education is to prepare individuals to enter the world of work, which, along with the population of individuals entering it, is constantly changing. Vocational education must be responsive to these changes. Industrial and technological progress result in changes in the occupational requirements of the economy, which require a restructuring of programs, goals, and priorities in vocational education. As occupational trends have direct implications for the future of vocational education, in a similar manner, changes in the population to be served may require changes in education procedures.

The projected trends in labor force and occupational composition have been detailed and summarized in a number of publications. Therefore, only those trends which have direct implications for vocational education will be analyzed.[5] Specifically, changing occupational needs will require the expansion of training programs for paramedical workers since a large number of people will have to be trained to meet the manpower requirements of the field of health in the future. "Office" training will have to be focused more and more in the area of operating data processing equipment. Growth is also expected in the sales occupations, as well as in public services (e.g., police and firemen, etc.), human services (e.g., social work, recreation, and probation, etc.), and environmental occupations (e.g., sanitation, water and sewage treatment, etc.).

Perhaps more important than what will be taught in the future is who will be taught, that is, the composition of the labor force. There will be two important labor force trends for vocational education: (1) by 1975 one-quarter of the population aged 16 to 25 will be in the labor force, representing a 30 percent increase over a 10-year period; and (2) by 1975 about 40 percent of the increase in the labor force will be comprised of minority workers. These two trends would appear to indicate that vocational education must concentrate its efforts on the youth of the country and expand its efforts in training the economically disadvantaged.

Two other closely related trends bear on the future course of vocational education. The educational requirements for specific occupations have been rising and can be expected to continue to do so in the future. Similarly, worker aspirations have been rising to such an extent that certain jobs are becoming undesirable in the eyes of many workers. The educational system not only responds to changing employment requirements in the economy, but employment requirements in terms of education required responds to the changing educational system. Table 47 indicates that since 1952 the educational attainment within occupational groups has increased. While it is true that much of this is due to the increasing skills required of particular occupations, it is also true that as more persons with better skills enter the labor market, the fact that they are available in larger numbers in turn raises job entrance requirements still further.

TABLE 47.—Educational Attainment of Employed Males 18 Years Old and Older, 1952 and 1964.

Occupational group	Percent Completing 8 years elementary school or less		Percent Completing 4 years of high school or more	
	1952	1964	1952	1964
All Occupations	41	26	40	55
White-collar workers				
Professional and managers	17	10	71	81
Clerical and sales	17	11	66	75
Blue-collar workers				
Craftsmen and foremen	41	29	34	46
Operatives	50	34	24	38
Laborers	67	47	17	27
Service workers	53	38	27	40
Farm occupations	67	58	21	27

SOURCE: L. A. Lecht, *Manpower Requirements for National Objectives in the 1970's*, Center for Priority Analysis, National Planning Association, Washington, D.C., February 1965, p. 182.

As this trend continues, and it will, persons with less schooling will find it more and more difficult to find employment. In future years, education will not only have to offer the training necessary to meet rising entry requirements, but will also have to make a concerted effort to prevent school dropouts, since these people will obtain jobs only with increasing difficulty.

As the educational level of the population rises, the occupational aspirations of that population will also rise, presumably at a greater rate. The lower the status of jobs (and this is not necessarily correlated with pecuniary returns), the fewer will be the number of people willing to enter the occupation. In the future, many services which society needs may go unperformed because no on will accept those positions. Such jobs as window washers, janitors, watchmen, etc., which are almost totally unskilled, will go begging if everyone has a skill. But in many instances, low skill, low status jobs can be performed by the handicapped and vocational education will be asked to provide them with the needed skills.

The category "handicapped" is a very heterogeneous one encompassing the mentally retarded, speech impaired, visually impaired, hearing impaired, crippled and health impaired, as well as the emotionally disturbed and socially maladjusted. Many of the individuals in these categories are capable of higher productivity jobs. In fact there is evidence today to indicate that many of the handicapped have not reached their full potential as workers, largely because of entry level requirements. Thus, a major future role for vocational education is training the more seriously handicapped for low entry requirement jobs, training other handicapped persons for better jobs, and facilitating the placement of these people by attempting to change employer attitudes.

Restructuring Vocational Education

Education in this country has traditionally centered around the three separate categories of education—general, academic, and vocational. Vocational education has been primarily directed at teaching particular skills to those who are not academically talented. Because of this orientation, many claim that the educational system in this country has failed, first, to prepare adequately the noncollege student for employability in terms of a career, and, second, to serve adequately the economically disadvantaged. Those youth who, for whatever reasons, neither pursue a vocational curriculum nor go on to college are likely to move aimlessly from one job to another after they leave school. Many of these persons are "dropouts." This general observation holds *a fortiori* for those who are disadvantaged for academic, socioeconomic, or cultural reasons.

In addition to these two basic failings of the present educational structure in this country there is a third, namely the failure to recognize the heterogeneity of the student population.

This is evident in the very terms "handicapped" and "disadvantaged." Both of these inclusive groups are far from homogeneous. The educational system has not taken account of the fact that different persons react to different stimuli and different goals. To many a high grade in a course is not a relevant goal for which to strive. Nor should a student be penalized because his learning process is slower than others, particularly when the student falls in the special needs category.

In order to correct these deficiencies in the present educational system, a restructuring is necessary. In fact, the nature of those deficiencies dictates the form that restructuring should take. It is anticipated that there will be increasing support for what is called the "cluster" or "career development" curriculum. The cluster curriculum supplements traditional vocational education and instructs students in broad vocational categories such as construction, health, or agriculture. The student can then identify with an entire curriculum rather than just one specific job or skill. For example, the business and office curriculum would (as it does today) instruct a girl so that upon graduation she could take a job as a stenographer, typist, secretary, or bookkeeper, etc.

The cluster curriculums would be developed around those occupations which require a common type of skill or knowledge. The student would be trained for a "general vocation" or a "family of jobs." In this way a change in technology will not render him obsolete in the labor market. The second advantage of the cluster approach is that it gives the student time to discover his vocational interests. The ninth grade student need no longer be faced with the choice of algebra, or metal shop, or dropping out. He is permitted more years and more leeway in making his choice, and is thus less likely to drop out of school.

The cluster curriculums will also serve as the core of study around which traditional academic subjects, such as mathematics, history, etc., will be taught. The essence of the cluster approach is flexibility, permitting the student to change from one curriculum to another as his vocational interests change. The program must be flexible in order to retain the student and educate him. The adoption of the cluster approach should eliminate the category of general education which neither prepares students for college nor for work. If properly formulated, it will provide a more valuable education for many, particularly the low-income youth.

Also of great importance to the improvement of vocational education in the United States is participation by private industry. Educators should develop continuing relations with employers (and unions) to attain their support for educational programs, particularly for the economically disadvantaged and handicapped where the assurance of a job at the completion of the program is a great incentive and, in many cases, a requirement for program success. Continuing dialogue between vocational educators and management can also increase recognition of the potential of those with special needs and lower the job entry requirements for them.

The Future Staffing of Vocational Education Programs

Future personnel needs in vocational education are determined, on the one hand, by the demand for teachers and ancillary personnel and, on the other hand, by the supply. A comparison of the two—demand and supply—provides an indication of the extent of personnel shortages in the future.

The demand for vocational education personnel is a derived demand, that is, it reflects the demand for vocational education itself. The greater the number of individuals who desire vocational training, the greater the number of teachers who will be needed to train them, and the greater the need for ancillary personnel. The number of persons seeking vocational training is a function of the size, composition, and attitude of the labor force, the types of occupations which exist, coupled with the entry requirements of employers. Therefore, the trends in the labor force, technological change, and attitudes must be examined to determine their future impact on the demand for vocational education and for personnel to provide it.

Another important factor affecting the demand for vocational personnel is the changing character of the educational process itself. For example, the growing use of an ancillary staff will change the role of the vocational teacher. A trend such as this can be expected to alter the "skill mix" among vocational education personnel.

Factors Affecting the Demand for Vocational Personnel

As stated above, the two factors affecting the demand for vocational personnel are the demand for and the approach to vocational education. The first factor is primarily a function of the changing skill needs of the economy. The major changes in the approach to vocational education are summarized briefly and are reflected in the projections set forth below.

A number of technological innovations will be widely adopted in the future by vocational educators. Closed circuit television, videotapes to show an individual how effectively he has performed, and teaching machines are some of the purely technological changes expected. However, these changes are not likely to reduce the need for teachers but instead will permit the teacher more time for individualized instruction.

The most important change to affect the future demand for and composition of vocational education personnel will probably be in the structure of education itself. Adoption of the cluster curriculum is the approach best suited to deal with the deficiencies of today's vocational education system. If the system moves in this direction, the changes in the needs for personnel required by the adoption of the cluster curriculum will define the future trends in the general demand for vocational education personnel.

The cluster curriculum has three main objectives: (1) teaching a body of occupational knowledge rather than a specific skill, (2) providing for a heterogeneous body of students, and (3) preventing the school dropout. The first objective calls for teachers who each have knowledge of a variety of skills. The second demands individualization in instruction. And the third requires among other things, a person-oriented approach to education, especially when working with the economically disadvantaged.

Thus, if the cluster approach is to be successfully adopted, the training programs for teachers must be changed, or the traditional personnel composition of education must be altered. Since an individual teacher may not always have the expert knowledge of all the particular skills within a cluster, he may need to be assisted by paraprofessionals with such knowledge. However, in some programs his functions will include training in job-entry skills in select occupations in the cluster. Regardless of the approach taken to provide the appropriate instructional personnel for a given cluster, the efforts of those concerned should be organized and coordinated as a total instructional unit. In this way, there is room for individualized instruction and the teacher will be better able to recognize the differences in the educational capabilities of the students. Perhaps most important, however, is the teacher's role as counselor, particularly with respect to the economically disadvantaged who rarely respond to counseling as currently practiced. The teacher is in a unique position to counsel because he is able to help and guide the student in his everyday work and, therefore, is most able to obtain his trust. This is not to imply that the teacher could replace the counselor. In the future there will be a great need for more counselors due to the growing difficulty of youth to cope with an ever increasingly complex society. The teacher, however, can effectively supplement the role of the counselor.

The cluster approach will require, therefore, a new kind of teacher training. The teacher must be trained in a broad institutional category. He must be taught how to teach a subject and how to coordinate and counsel. He must be able to utilize education techniques and to recognize educational progress.

There will doubtless be an acute need for paraprofessionals. Of particular benefit would be recruitment of persons who have come from the low-income population. Such persons would serve as "role models" for the economically disadvantaged enrollee as the lack of such models has been a major factor in the dropout problem. One possibility is the hiring of black servicemen as paraprofessionals; they could provide a bridge for the low-income youth between his school work and the outside world.

The Demand for Vocational Education Personnel

As metioned before, any projection of future personnel requirements in vocational education must take account of the changing occupational structure in the economy. The major patterns of changing occupational requirements have already been discussed. These patterns are set forth in table 48, along with cumulative "new entrant requirements" associated with each occupational category.

Tables 48 and 49 project the personnel requirements for vocational education based on the future occupational requirements of the economy. These tables are based upon the assumption that in 1975 the civilian labor force will total 91.4 million people of which 3 percent will be unemployed. It must, of course, be recognized that there are many categories of vocational education. Table 50 presents the relative distribution of the major categories which prepare individuals for the job market and reveals that the majority of vocational training in this country (approximately 70 percent) is carried on in the public schools.[6]

For the basic formal training programs which prepare persons for the job market, occupational "new hire" requirements of the economy have been distributed and converted into enrollment figures in table 51. (The method and assumption for these projections are described at the end of the chapter.) These results are reasonably consistent with other data derived by the U.S. Office of Education (USOE) which projects a total enrollment of 140,000,000 in federally supported vocational education for 1975. The discrepancy between earlier USOE projections and those in table 51 results from a difference in projecting enrollments in private schools. The new projection contained here assumes the relative proportion of private to public school enrollments in vocational programs will remain the same, while the earlier USOE projection assumed a decline in the relative importance of private vocational education.

TABLE 48.—Employment 1966 and Projected 1975 and New Entrant Requirements 1967–75, by Major Occupation Group

	1966 Employment		Projected 1975		Percent change 1966–75	New entrant requirement (1967–74) in millions
	Millions	Percent	Millions	Percent		
White-collar workers	33.3	45.0	42.6	48.1	28	17.4
Professional and technical	9.3	12.6	12.9	14.6	39	5.9
Managers, officials, and proprietors	7.4	10.0	9.0	10.2	22	2.8
Clerical workers	11.8	16.0	14.8	16.7	25	6.4
Sales workers	4.8	6.4	5.9	6.7	24	2.4
Blue-collar workers	27.2	36.7	29.9	33.7	10	8.3
Craftsmen and foremen	9.6	13.0	11.4	12.8	18	3.5
Operatives	13.9	18.7	14.8	16.7	7	4.1
Nonfarm laborers	3.7	5.0	3.8	4.3	(1)	0.7
Service workers	9.7	13.1	12.7	14.4	31	6.3
Farm and farm workers	3.9	5.2	3.4	3.8	−14	−0.4
Total	74.1	100.0	88.7	100.0	20	31.5

SOURCE: *Tomorrow's Manpower Needs*, U.S. Department of Labor, Bureau of Labor Statistics, February 1969. *Estimates of Vocational Education Requirements Based upon General Learning Corporation Model*, prepared by J. Nussbaum, *et al.*, for Ohio State University Conference on Manpower Forecasting for State Vocational Education Planning.

TABLE 49.—"New Hires" Grouped by Major Field of Vocational Education: 1967, 1975, 1967–75

Major fields	New hires		
	1967	1975	Cumulative 1967–1975
Trade and industrial	765,200	944,900	7,662,700
Office	648,800	846,700	6,686,900
Distributive	520,700	655,400	5,268,600
Health	155,600	233,100	1,730,000
Home economics	144,800	166,700	1,398,900
Technical	52,200	74,700	565,400
Agriculture	−6,700	−1,100	−34,700
Other vocational education	*417,900	*528,800	4,239,200
Total	2,698,500	3,449,200	27,333,600

*Calculated on basis that "other" category has noncollege as 51.3 percent in terms of cumulative requirements. With the exception of the cumulative requirements, the data included "other" vocational with college.

SOURCE: *Estimates of Vocational Education Requirements Based Upon General Learning Corporation Model*, proposed by J. Nussbaum, *et al*, for Ohio State University Conference on Manpower Forecasting for Vocational Education Planning.

TABLE 50.—Distribution of Vocational Enrollment, 1966

Program	Enrollment	Percent of total
Public Vocational Education	[1] 6,070,059	69.4
Private Vocational Education	[2] 1,863,750	21.3
Total	7,933,809	90.7
Manpower Development and Training Act	[3] 265,000	3.0
Institutional	150,000	1.7
On-the-Job Training	115,000	1.3
Registered Apprentices	[1] 242,648	2.8
Office of Economic Opportunity	300,410	3.5
Job Corps	[3] 41,883	0.5
Title V Trainees*	[1] 64,000	1.0
Neighborhood Youth Corps	[1]161,000	2.0
Total	8,741,867	

* Trainees in work experience programs under title V, Economic Opportunity Act.

Source: [1] U.S. Office of Education, *Vocational and Technical Education*, 1966, table 1.
[2] Prepublication data from Office of Education.
[3] Subcommittee on Employment, Manpower, and Poverty, *Employment and Training Legislation*, 1968.

Table 51 shows that, if the vocational programs in this country (both public and private) remain in the same relative distribution from the present to 1975, they could provide training for everyone entering jobs if they achieve a total enrollment of approximately 19 million. This, of course, ignores the enrollment of individuals who may hold jobs but who are also enrolled in courses in order to "keep up" with changing job content.

There is a basic difficulty with both the projections in table 51 and those of previous USOE data which are derived on the basis of national data. Ideally, projections of this type should be built up on a State by State basis. Occupational requirements differ not only by States and regions but also by size and types of vocational education programs available. Table 52 points up the disparity in the relative sizes of the vocational programs available in the United States, whereas table 53 reveals that a "typical" State, such as Minnesota, is atypical in its vocational education programs. In the future it will be possible to build projections on a State basis, since, as of this year, each State is required to submit a long-range plan to the U.S. Office of Education. A major drawback to these State reports is the difference in the quality and sophistication of the projections. In future years, as the States improve their projections, national projections can be made by simply summing up the data of the 50 States.

TABLE 51.—Projections for 1975

Program	New Hires	Enrollments
Public vocational education	2,556,000	14,142,000
Private vocational education	783,000	4,332,000
Institutional trainees under the Manpower Development and Training Act	62,000	117,000
Job Corps	17,000	61,000
Trainees in work experience program under title V, Economic Opportunity Act	31,000	83,000
Total	3,449,000	18,735,000

SOURCE: Derived from tables 49 and 50. See appendix for explanation.

TABLE 52.—Vocational Education Enrollment per 1,000 Population for Selected States: 1966

State	Enrollment per 1,000
Maine	10.2
Minnesota	36.0
Rhode Island	9.0
Utah	50.6
Washington	55.1
United States	31.3

SOURCE: *Vocational Education*, General Report of the Advisory Council on Vocational Education (Washington, 1968), p. 12.

TABLE 53.—Percentage Distribution of Enrollment in Vocational Education by Levels of Education: United States and Minnesota

Level	United States Percent	Minnesota Percent
Secondary	50.2	37.2
Postsecondary	7.3	13.9
Adult	41.7	48.9
Special Needs	0.8	------------
Total	100.0	100.0

SOURCE: *Digest of Educational Statistics, 1968*, U.S. Office of Education (Washington: 1968), and Minnesota's State Plan, 1969.

If vocational education is to serve adequately the population of this country, the programs in the various States will have to expand at different rates since the States vary greatly in terms of the level and amount of vocational education currently being offered. For example, if all States were to enlarge their programs at the same rate as proposed in Minnesota, in 1975 there would be only 9 million enrollees in public vocational education, including adult education, secondary and postsecondary education. (The growth rates are calculated from Minnesota's State plan.) Using the same ratio for private programs, this would produce a total vocational enrollment of 12 million in 1975, far short of the Nation's needs.

Data on the demand for and supply of teachers exist only for the first two categories in table 51 namely, public and private vocational education. Therefore, the projections for teacher needs will be restricted to these two categories. These will account for over 90 percent of teacher requirements for training programs in this country. Table 54 presents projections on student enrollment and teacher requirements for 1975. Special needs programs, also included in the data, will be considered separately.

The data utilized for these projections are the gross projections of USOE which are consistent with the requirements changes in the economy, as indicated previously. An estimate for adult education was not included in the projections in table 51 since the data are based on "new hires," and thus do not reflect enrollments of persons with jobs.

TABLE 54.—Enrollments and Teachers Projected to 1975 by Level and Type of Program: Public and Private Vocational Educational

Level and type of program	Enrollments	Teachers [1]
All Programs	19,170,000	448,300
Secondary	9,300,000	173,300
Postsecondary	2,620,000	113,900
Adult	7,250,000	161,100
Trades and Industry	4,474,000	148,300
Secondary	1,206,000	37,900
Postsecondary	644,000	30,900
Adult	2,624,000	79,500
Office	4,973,000	104,700
Secondary	3,050,000	58,600
Postsecondary	974,000	28,600
Adult	949,000	17,500
Distributive	1,469,000	27,900
Secondary	372,000	7,000
Postsecondary	89,000	2,600
Adult	1,008,000	18,300
Health	297,000	19,200
Secondary	37,000	1,600
Postsecondary	246,000	17,000
Adult	14,000	600
Home Econonics	5,817,000	81,900
Secondary	4,005,000	56,900
Postsecondary	13,000	300
Adult	1,799,000	24,700
Technical	1,245,000	54,400
Secondary	130,000	4,500
Postsecondary	649,000	34,400
Adult	466,000	15,500
Agriculture	896,000	11,900
Secondary	500,000	6,800
Postsecondary	6,000	100
Adult	390,000	5,000

[1] These projections are based on previously published data. See the section on methodology for the derivation of table 54.

The key assumption underlying the projections in table 54 is that vocational education programs throughout the country will respond to the changing occupational needs of the economy. The relative increases in program enrollments are based upon the relative increases in "new hire" requirements. (See the notes at the end of the chapter for the method utilized.)

It is not possible to compare the 1975 projections in terms of the detail provided in table 54 with present experience because of the absence of refined data on private vocational education. However, table 55 reveals the comparative increases in the need for vocational teachers by level and program. In terms of program level, postsecondary education is expected to show the greatest relative increase, with adult education second.

TABLE 55.—Relative Change in Vocational Teacher Needs 1966–1975 by Level and Type of Program (Divided by the Mean Relative Change)

Vocational Education Classification	Standardized relative change
All Programs	
Secondary	0.8
Postsecondary	2.1
Adult	0.9
Trades and Industry	1.3
Office	1.7
Distributive	1.3
Health	2.0
Home Economics	1.0
Technical	2.6
Agriculture	0.005

SOURCE: 1966 data from *Digest of Educational Statistics*, 1968, U.S. Office of Education (Washington: 1968), p. 35. 1975 data from table 10.

In 1966, postsecondary vocational education served 3.26 percent of the population 20–24 years of age. In 1975 this figure is expected to increase to 13.6 percent. This rapid expansion in postsecondary education and the concomitant increase in the need for teachers are consistent with past trends. From 1965 to 1966 public postsecondary vocational education increased by 156.7 percent.[7] Factors affecting this past and future growth are the expected increase in participation of postsecondary vocational institutions in programs for the handicapped and economically disadvantaged and the sharp increase in the number of 2-year colleges. Most important, however, is the changing occupational composition of the economy. The greatest increases in expected enrollments are in the fields of health, technical, and office occupations. This is evident in the relative teacher requirements presented in table 55. In 1966 public postsecondary education had 43.6 percent of all health occupation enrollees, 39.5 percent of those enrolled in the technical category and 13.4 percent of all office enrollees.[8] Together, these three groups represented over 68 percent of all enrollments in vocational education at the postsecondary level.

The rapidly changing technicial and health fields will also have a considerable impact on adult education. At present 44.3 precent of health enrollees and 49.1 percent of technicial enrollees are in adult education.[9] To maintain their qualifications in these rapidly changing and expanding fields, more people will be seeking additional vocational training. Also, a greater number of lesser skilled adults will find the need for upgrading, as job qualifications are raised. These developments, plus the increasing emphasis on training the economically disadvantaged, will tend to increase the demand for adult vocational education. At present only 3.2 percent of the civilian labor force take advantage of adult vocational education services. This is expected to increase to about 8 percent by 1975.

The smallest relative increase in teacher needs will be at the secondary level, unless a major change, such as adoption of the cluster approach, is made in the present vocational education program. With the exception of the office category, the great bulk of secondary school vocational education is in those categories which will experience the least growth in future years.

It is extremely difficult to make any projection of teacher requirements for the special needs category due not only to lack of adequate data but also to the impact of 1968 amendments to the Vocational Education Act. A sample of the State plans reveals that the enrollments in special needs programs in 1975 will vary from 2 percent of total enrollment in some States to 10 percent in others if their actions are consistent with their projections. The average appears to be around 6.5 percent. If enrollment in special needs programs continues at the same growth rate as in previous years, total enrollment would approach 2 million. If the growth in enrollment were to continue with the same absolute changes, total enrollment would be only 280,000. Neither of these estimates is realistic (although the 280,000 figure is almost precisely equal to a projected enrollment if the entire country were to have only 2 percent of total enrollment as planned by some States.)

This last estimate is obviously low in view of the recent amendments. But a constant 50 percent growth rate is difficult to perceive in view of the personnel that would be required. The average of 6.5 percent appears to be a more realistic estimate, one which will result from a positive but declining growth rate of enrollment. On this basis the projection for enrollments of students in special needs programs is 800,000; the same growth in the need for teachers would create a demand of 21,800 by 1975. This estimate is reasonable and consistent with both the intent of Congress and the intent of State planners of vocational education. On the basis of this projection it is obvious that the demand for special needs teachers will be increasing most rapidly in the future.

Table 56 presents the projections for the ancillary personnel affiliated with vocational education. The basic assumption behind the table is that the ratio of total ancillary personnel to teachers will remain relatively constant. However, the relative changes for specific categories differ with the greatest relative increases occurring in the "specialist" and "teacher trainers" (institutions) categories. This reflects the expected increased need for support personnel to aid in establishing curriculums and the necessity to upgrade teachers in vocational education. By 1975 there will be a need for 5,666 teacher educators compared with 2,145 in 1966.

TABLE 56.—Actual and Projected Numbers of Ancillary Personnel 1966 and 1975

Personnel	1966	1975
State Level		
Directors or supervisors	378	860
Asst directors or supervisors	420	1,080
Area supervisors	257	1,230
Youth specialists	32	240
Teacher trainers	160	150
Itinerant teachers	182	400
Research specialists	59	150
Guidance specialists	46	150
Curriculum specialists	79	150
Other	125	320
Teacher trainers (institutions)	2,145	5,666
Local Level		
Directors or supervisors	3,080	9,420
Guidance specialists	1,009	1,980
Curriculum specialists	123	320
Other	317	740
Total		22,856

SOURCE: For 1966, *Vocational and Technical Education, Annual Report*, 1966, U.S. Department of Health, Education, and Welfare (Washington, 1968), p. 54. See notes at the end of the chapter for derivation on 1975 figures.

It is obvious from table 57 that if such an approach to education is adopted, there will be an increased need for teachers trained in vocational education. (The teachers required exceed the projected needs for traditional public and private vocational education combined.) The major impact will be at the secondary level. At present, 26.9 percent of high school students go on to postsecondary training. Approximately 12 to 16 percent of vocational enrollees continue their education beyond high school. This percentage can be expected to increase in the future because of the constant rise of job requirements. If the cluster approach is adopted in secondary schools the number of students entering postsecondary education should increase because many students will need more specialized training to obtain certain jobs. For example, if it is assumed that 20 percent of students in the occupational and the general vocational categories combined continue their education, the enrollment in postsecondary vocational education would increase present enrollment and teacher needs by about 50 percent. Since it will be very difficult to train the additional number of teachers in the time allotted, adjustments will have to be made as soon as possible throughout the entire educational system if the new approach is to be adopted.

The projections up to this point have been based upon the expansion of the existing system of vocational education in response to the changing occupational needs of the economy. It is, of course, desirable that our educational system adjust to the changing economic environment. However, as suggested earlier, this adjustment should not take place along traditional lines. In view of the changing status of the worker and the increasing difficulty of the student in relating his education to his environment, many are now regarding the cluster approach as necessary in our secondary schools. Adoption of this approach will influence teacher requirements.

In 1975, the projected enrollment in public secondary schools is expected to be 15.1 million students.[10] In the absence of any existing intensive studies on the cluster approach to education, we will assume that 35 percent will be enrolled in the strictly academic instructional category and 10 percent in the purely occupational category. This means that 55 percent will be eligible for the general vocational curriculum. Table 57 presents the projections for vocational education curriculums in public secondary schools under these assumptions. Again it is assumed that the particular curriculums are responsive to the needs of the economy.

The Supply of Vocational Education Personnel

The only supply data amenable to projection for vocational education personnel are those for accredited teachers in secondary schools. Information on staffing in vocational education is inadequate; for example, the percentage of vocational teachers graduating from schools of education is not known, nor is there information on the relative sources of ancillary personnel or administrators. Furthermore, in many health professions, and in others as well, the paraprofessionals are accredited by professional organizations. As for the supply of teachers of adult education, it is impossible to estimate the numbers that are now secondary or postsecondary teachers, or the number that come from business and industry. Therefore, this section must be devoted primarily to examining the supply of secondary school teachers of vocational education.

TABLE 57.—Projected Vocational and Technical Enrollments and Teacher Needs in Public Secondary Schools in 1975 Assuming Cluster Curriculums

Program	Enrollments			Teachers
	Occupational curriculum	Cluster curriculums	Total	
Trades and Industry	184,000	1,114,000	1,298,000	39,300
Office	477,000	2,623,000	3,100,000	57,400
Distributive	59,000	322,000	381,000	6,900
Health	6,000	32,000	38,000	1,700
Home Economics	660,000	3,588,000	4,248,000	58,200
Technical	30,000	109,000	139,000	4,600
Agriculture	94,000	517,000	611,000	7,900
Total	1,510,000	8,305,000	9,815,000	176,000

SOURCE: Total projection of 1,510,000 from *Projections of Educational Statistics to 1976–77*, U.S. Office of Education, 1967, p. 9. Other figures derived.

Table 58 presents the supply of vocational education graduates by fields for the year 1968. If the present teacher education system were to remain static the total supply of accredited vocational education teachers would be about 20,000 for 1975. Assuming that education programs for vocational educators expand at the rate expected for all education programs (approximately 33 percent to 1975) the total supply will be 26,500 graduates. However, as indicated in table 58, only 62.2 percent (on the average) enter the teaching profession. This means that even with the expected increased teacher output, only 16,500 will be available to teach vocational education at the secondary level. It is probable that the 62.2 percent figure can be higher if the attractiveness of teaching positions, in monetary or nonmonetary terms, is increased.

Supply Compared with Demand

Before the supply of secondary school teachers can be compared with the demand for teachers, account must be taken of replacement needs. The method used to calculate these needs has been to assume that the expansion in vocational education will be linear in absolute terms, which implies a positive but declining growth rate. This is not an unrealistic assumption since the growth of vocational education cannot continue to expand at presently expected rates, or at some point in time all students will be in vocational education.

TABLE 58.—Vocational Education Secondary School Teacher Supply

Program	Teacher supply	Percent entering teaching	Number entering teaching
Agriculture	2,047	57.2	1,171
Business	9,001	63.5	5,716
Distributive	475	51.6	245
Home Economics	6,780	63.4	4,299
Health	1,017	67.6	687
Technical and T&I	609	44.2	269
Total	19,929	62.2	12,387
With 33% growth	26,500		16,500

SOURCE: *Teacher Supply and Demand in Public Schools, 1968*, Research Division, National Education Association, 1969, p. 25.

Table 59 presents the estimates of replacement needs and reentering teachers in vocational education for 1975, for all levels. The difference between these two estimates, plus the number needed to meet expansion, yields the total number of new teachers who will be needed by 1975. When adjustment has been made for the supply of vocational teachers in the distributive and trades and industry fields who are not obtained through the educational system, as well as similar adjustments in the adult category, the need for new teachers in 1975 is for 22,800 teachers in secondary schools, 14,600 at the postsecondary level, and an additional 1,400 for adult instruction.[11]

At the secondary level, a comparison of supply with demand does not provide an especially sanguine picture. If teacher education graduates continue to enter teaching at the present rate, the shortage of vocational instructors will exceed 6,000 by 1975. However, the potential supply (i.e., if all graduates were to enter teaching and if all teachers were to be prepared in fields where they were needed) would exceed the need by about 4,000. In other words, as pointed out previously, one possible method of overcoming the teacher shortage in 1975 would be to make teaching positions more attractive. The other alternative is to expand the system for training vocational educators more rapidly.

TABLE 59.—Need for Vocational Education Teachers in 1975

Level	Replacement need (1)	Teachers reentering (2)	(1–2)	Expansion needs	Total new needs
Secondary	14,900	5,200	9,700	12,100	21,800
Postsecondary	4,000		4,000	8,000	12,000
Adult	6,600	2,300	4,300	5,600	9,900

SOURCE: Derived from *Teacher Supply and Demand in Public Schools, 1968*, Research Division, National Education Association, 1969, and *Tomorrow's Manpower Needs*, U.S. Department of Labor, Bureau of Labor Statistics, vol. I, February 1969. See appendix for explanation.

Priorities for Recruitment and Training

The thrust of Federal support for vocational education should be at the secondary school level, and to a lesser extent at the elementary and postsecondary level. The priority of aiding the economically disadvantaged and handicapped has been established by the 1968 amendments to the Vocational Education Act. This legislation recognizes the need to educate teachers capable of communicating with and instructing these types of students. There is little question that the greatest shortage of teachers in the future will be in this area. The educational system must develop programs which will graduate teachers sensitive to the individual, able to counsel him, and capable of gearing the education process to a wide range of student abilities.

Perhaps of more immediate importance then the training of new teachers is "inservice" training for teachers already in the system. Not only must teachers be adequately prepared, but also administrators, counselors, paraprofessionals, and other ancillary personnel should receive inservice training in the particular methods of educating the student with special needs. Great stress should be placed on the recruitment of the paraprofessional. If possible, they should be people from backgrounds similar to those of the students. The qualifications of the teacher aide may be as important as the qualifications of the teacher for working with the economically disadvantaged.

The concerns with respect to the recruitment of personnel for special needs programs are nearly identical to those of vocational education in general. It will be necessary that teachers be trained in a *core* of knowledge rather than a specific skill, so that they may teach a general, as opposed to a specific, vocation. In addition, they should be trained to work with students with special needs. Teacher training institutions will have to adjust their curriculums to meet these new approaches, for example, by including a greater emphasis on "learning" rather than "teaching," by preparing teachers to utilize aides and other paraprofessionals in differentiated staffing arrangements, etc. If personnel requirements are to be met, consideration will have to be given to expanded inservice training programs and an easing of certification requirements.

The emphasis in occupational education for a large majority of secondary students should include an expansion of work-study and cooperative work programs. These programs will demand personnel trained in supportive capacities such as coordinators, curriculum specialists, placement officials, guidance counselors, etc., all of whom should be oriented toward the world of work rather than toward college.

Moreover, every effort should be made by vocational educators to establish continuing lines of communication with labor, industry, and the community. First, this will keep the educators abreast of changes in occupations for which they are preparing their students. Second, it is a means whereby the educators can increase the acceptance by industry of the poor and handicapped both economically (i.e., get them hired) and socially. Third, since the character of vocational education will be changing, these continuing forums can be used to help dissipate attitudes of resistance to that change.

Given present and future needs in vocational and occupational education, Federal, State, and local funds must be directed to training new teachers and retraining present teachers, primarily for the secondary schools and especially for teachers of students with special needs. Even though adoption of the cluster approach will increase the need for new teachers, it will more immediately require inservice training and upgrading for those currently in the schools. It is estimated that, under the present system of vocational education, approximately 30 percent of teachers should receive upgrading each year to keep abreast of technological changes and changing social conditions. Training should initially be directed to 11th or 12th grade teachers, since these are the pivotal grades in the education ladder, with a major focus on special needs teachers. If the cluster approach is adopted, at least 50 percent of monetary resources should go to support inservice training for the upper secondary grades.

In addition, upgrading will have to be provided at the postsecondary and elementary levels. At the elementary level, few new teachers will be required. The teachers, however, will have to be trained to instruct children in manipulative skills and to introduce them to the world of work. Perhaps one faculty member whose specialty lies in this area will have to be added to each elementary school staff. Although at the postsecondary level not only more teachers but teachers with updated training will be needed, this should not be the primary consideration in the allocation of funds for teacher education. If the supply of postsecondary teachers (both in quality and quantity) lags behind the secondary schools, business and industry will have to take up the slack for a short period with on-the-job training.

Research Needs

If educators and planners are to correct the deficiencies in the present vocational education system, they must not just keep up with the changes which are occurring, but keep ahead of those changes. If this is to happen, information presently lacking on the labor force, technological change, teacher supply and demand, etc., must be systematically collected as a basis for realistic planning. Research on supply and demand for personnel should be conducted and information provided at the State level, if not by smaller areas, primarily because regions differ in geography, industrial structure, population composition, etc. A national projection is of little value to State and local planners. As the State plans become more sophisticated in future years, with projections based upon the changing structure of occupations, one will be able to obtain a better estimate of the demand side of the teacher market.

One problem with current data is that enrollment figures include duplication, i.e., if a student is taking both a home economics course and a typing course he is counted in both curriculums. In addition, other students who take such courses but who are not enrolled in a vocational program are counted as well. The published data on teachers are also lacking in precision. Teachers reported by program and level represent an unduplicated count only for the total. Each reported level and program includes duplication: i.e., if a teacher teaches both home economics and health, and/or both secondary school and adult education, he is counted in each case. Because of these data inconsistencies, it is difficult to obtain an estimate of teacher needs, to say nothing of an estimate of student-teacher ratios which is needed for projections.

On the demand side, the research needs are somewhat less urgent; improvement in data collection is all that is necessary. One major research need, however, is in the area utilization of personnel, including ancillary personnel. Studies should be undertaken to determine new directions in educational structure and teaching methods in order to provide estimates of the future needs for all personnel, and especially for paraprofessionals.

Thus, the primary emphasis of research into educational manpower should focus on supply. Research should be undertaken to determine the staffing patterns for both ancillary personnel and teachers for all levels of vocational education, including collection of information on preparation, certification, and upgrading. Studies should be undertaken, preferably on a regional basis, to determine the composition of the pool of qualified personnel who represent potential entrants to the teaching profession. If possible, the social and economic factors which influence the occupational decisions of present as well as potential teachers should be determined to permit policymakers to alter the relevant variables to attract and retain teachers.

METHODOLOGY

The projections for this chapter were derived largely through methods dictated by considerations of availability of data. The total enrollment figures in table 54 as it is explained on the following page were provided by the Bureau of Adult Vocational and Technical Education and are based upon the expected impact of the recent legislation as discussed on page 51. The methodology of the derivation of germane tables follows.

Table 51

The method for deriving table 51 was to assume that the relative distribution of vocational education programs would not change between now and 1975. This relative distribution was employed to distribute the total new hires for the economy. The new hires data are from *Estimates of Vocational Education Requirements Based Upon General Learning Corporation Model*, prepared by J. Nussbaum and W. Morsch, in cooperation with Joseph C. Bernier and Nicholas DeWitt for Ohio State University Conference on Manpower Forecasting for State Vocational Education Planning. The new hires requirements in the Nussbaum paper were derived by distributing the future occupational requirements projected by the Bureau of Labor Statistics in *Tomorrow's Manpower Needs* to vocational education fields.

In order to convert new hires to enrollments, present enrollment-completion (E–C) and completion-hire (C–H) ratios were applied. The ratios used were:

(1) Private and public vocational education.
E–C = 3.32; C–H = 60 percent

(2) M.D.T.A. institutional programs:
E–C = 1.38; C–H = 73.4 percent

(3) Job Corps:
E–C = 1.89; C–H = 53.4 percent

(4) Title V Trainees:
E–C = 1.29; C–H = 48.2 percent

Another assumption implicit in this approach is that in the future the relative distribution of hires from vocational programs will remain constant.

Table 54

The first step in deriving enrollments in table 54 was to take the percentage change in new hires over the period by curriculum and apply them to 1967 vocational enrollments by level of education. In this way a hypothetical 1975 distribution was obtained for each level of education.

The relative contribution of each level of education was then used to distribute the total 19,170,000 enrollees, by level, for 1975. Within each level category, the relative distribution by program previously derived was then applied to the breakdown by level for 1975.

An adjustment in terms of relative contribution by program was then made to distribute the "other" category of new hires, since no such category exists in the 1967 vocational education statistics.

The basic student-teacher ratios utilized were derived from *Vocational and Technical Education, Annual Report, 1966* by the U.S. Office of Education. Since teacher data in this volume are presented by level and by program but not by both, the assumption was made that student-teacher ratios are primarily a function of the type of education, rather than the level of education. On this assumption student-teacher ratios by type of program were applied to the derived enrollment figures.

To adjust for varying student-teacher ratios by level of education, the student-teacher ratios which were derived were then compared to those by level of education and adjusted to the 1967 student-teacher ratios for levels of education. For example, if the calculated student-teacher ratio for secondary schools was 10 percent higher than it actually was in 1967, then all student-teacher ratios by program for secondary schools were lowered by 10 percent.

There is one major difficulty with this method which is unavoidable. The number of teachers, by program, is an unduplicated count, whereas the teacher data by level is a duplicated count. Since the student teacher ratios were adjusted to fit the latter data, the teacher projections in table 56 include some degree of duplication.

Table 56

For table 56, the total increase in ancillary personnel was projected assuming the need for such persons would increase at the same rate as the need for teachers. This total was then distributed to particular categories in terms of the relative distribution of the 1975 projections which appears in table 59 of *Vocational and Technical Education,* 1966.

Table 57

The cluster data were derived by applying the percents of 10 and 55 to the projected 1975 secondary enrollment of 1,510,000. The 9,815,000 enrollees projected were then distributed by program in terms of the 1975 relative distribution of table 54. The method for deriving the teacher needs was the same as for table 54.

Table 59

As noted in the text the expansion of the vocational system was assumed to be linear in absolute terms. Therefore, the increased needs for new teachers due to expansion in the year 1975 are the average of the need over the entire period. It was assumed that 3 percent of new staff in secondary and adult education would come from reentry and that 8.6 percent of new staff would be needed for replacement. These figures were obtained from *Teacher Supply and Demand In Public Schools, 1968,* prepared by the Research Division of the National Education Association. The replacement figure for postsecondary teachers was obtained by applying the annual retirement rate for college teachers provided in *Tomorrow's Manpower Needs—Vol. I.* No data on reentry for this level of education could be found. Since this factor is most likely small for college instructors, it was assumed to be zero.

The figures for adult education exclude that percentage of teachers obtained from business and industry, implicitly assuming that adult education will maintain its present staffing pattern through 1975.

It was calculated that 70 percent of distributive teachers and 90 percent of teachers in technical and trades and industry curriculums did not come from teacher accrediting institutions.

This calculation was made by comparing the number of teachers entering in 1968 with the number of persons hired to teach in 1968 by program at the secondary level. The latter series of figures was calculated by application of the ratio of "teacher education graduates as percent of new teachers employed" as provided in *Supply and Demand. . .* For the other vocational programs the number of teacher entrants exceeded the number hired, so that no estimate of staffing patterns could be obtained.

The supply data on health teachers unfortunately are published as "health and physical education." It was assumed that 7 percent of this total represented health teachers. The 7 percent estimate is based upon the fact that this is the relative health enrollment in the total category of physical education and health in institutions of higher education. (From *Students Enrolled for Advanced Degrees, Part A—Summary Data, Fall 1967*, National Center for Educational Statistics).

The final figures on need (21,800 for secondary, 12,000 for postsecondary, and 9,900 for adult) were estimated from the last column of table 59 with the adult teacher need figure distributed on the basis of the 1967 distribution in terms of those who were full-time, secondary, and postsecondary.

NOTES

[1] L. A. Lecht, *Manpower Requirements for National Objectives in the 1970's*, Center for Priority Analysis, National Planning Association, Washington, D.C., February 1965, p. 188.

[2] Sec. 122(a) of the Vocational Education Act of 1963 as amended defines programs for the disadvantaged and handicapped as follows:

(a) "Vocational education for persons (other than handicapped persons) . . . who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program;

(b) "Vocational education for handicapped persons who because of their handicapping condition cannot succeed in the regular vocational education program without special educational assistance or who require a modified vocational education program."

[3] Carl J. Shaefer and Jacob J. Kaufman, *Occupational Education for Massachusetts* (A report prepared for the Massachusetts Advisory Council on Education, June 1968), pp. 91 and 92.

[4] A. Harvey Belitsky, *Private Vocational Schools and Their Students: Limited Objectives, Unlimited Opportunities*, Schenkman Co. (Mass., 1969), p. 80.

[5] For details see U.S. Department of Labor, *Manpower Report of the President*, U.S. Government Printing Office (Washington), 1969; and U.S. Department of Labor, Bureau of Labor Statistics, *America's Industrial and Occupational Manpower Requirements, 1964–75*, U.S. Government Printing Office (Washington), 1966.

For a summary in the context of the future of vocational education see U.S. Department of Health, Education, and Welfare, Office of Education, *Vocational and Technical Education, Annual Report, 1967*, Government Printing Office (Washington, 1969).

[6] Table 50 does not include all the possible training programs in the country (e.g., Operation Mainstream) but only those for which adequate data were available. However, the bulk of the programs in terms of enrollment is represented.

[7] These percentage figures are from *Vocational Education*, General Report of the Advisory Council on Vocational Education (Washington, 1968), table 15 and p. 28.

[8] *Ibid.*, table 12.

[9] *Vocational and Technical Education, Annual Report 1966*, U.S. Department of Health, Education, and Welfare (Washington, 1968), Calculated from Table 9.

[10] *Projections of Educational Statistics to 1976–77*, U.S. Department of Health, Education, and Welfare (Washington, 1968), table 2.

[11] See notes on methodology for the manner of adjustment.

APPENDIX A

Description of Education Professions Development Act Activities 1969 and 1970

Since the theme of this report is the teaching of students from low-income families, this section is devoted to a description of programs supported under the Education Professions Development Act (EPDA) in fiscal years 1969 and 1970 which are aimed at elementary and secondary school educational personnel serving these students. It includes as well a description of the higher education programs authorized under part E of the act.

EPDA Programs for Low-Income Youth

Within the Bureau of Educational Personnel Development (BEPD) several programs are devoted exclusively to serving the needs of underprivileged youth. These are the Career Opportunities Program, the Teacher Corps, and the new Urban/Rural School Development Program which begins in fiscal year 1971. In addition, through the Correctional Education Program, BEPD contributes funds to the Bureau of Elementary and Secondary Education to support training for staff in correctional institutions. The Bureau also supports projects in bilingual education and reading which have been directed to economically deprived youngsters. All other BEPD programs, though not entirely directed toward low-income students, nonetheless contribute importantly to the goal of equalizing educational opportunity for all students.

The Career Opportunities Program (COP), launched in the spring of 1970, is an important new effort to improve the learning of low-income children by bringing talented, concerned people from low-income communities into schools as education auxiliaries. By combining supervised classroom work in the schools with academic study in cooperating universities, local COP developers expect to find better ways of utilizing and training school personnel within a framework of improved school-community relations.

EPDA, parts C, D, and F

Throughout fiscal years 1969 and 1970, the first 2 years of the Education Professions Development Act, priority was given to the objective of equalizing opportunity for quality education for all students regardless of race or family income. In fiscal year 1969, about one-third of EPDA funds were devoted to serving the needs of low-income youth, in fiscal year 1970, about one-half, and in fiscal year 1971, 70 percent.

In fiscal year 1969, $22.6 million supported 266 projects to train educational personnel to work with low-income children. In addition, 33 projects trained personnel to work with bilingual students at a cost of just under $3 million. Two projects, costing $39,000, were supported to improve education for migrant children. Of the above projects, $20.7 million went to support projects directed to minority groups. As to target groups by demographic characteristics, over $6 million supported projects targeted at both inner-city and rural areas; while another $14 million was directed exclusively to inner-city areas and an additional $4.9 million to rural areas. In addition to the above, over $2 million supported training in Appalachia and approximately $158,000 went to Model Cities in fiscal year 1969.

In addition to these long-range goals, the work-study program is designed to be of immediate benefit in two ways to overburdened teachers and administrators of urban and rural poverty schools. Regular teachers who pair with COP auxiliaries are able to tap these supplementary talents for a variety of classroom tasks, from simple support assignments to more sophisticated media-assisted work and individualized instruction. Moreover, COP auxiliaries, with built-in cultural links to the community, can help teachers and administrators do a better job by showing them how to relate more effectively and more sensitively to the needs of low-income youngsters.

Each COP auxiliary begins his career in education at whatever level his abilities and interest permit, then pursues his own career development as far as he wishes from teacher aide to assistant teacher, intern teacher, and ultimately to teacher certification and a baccalaureate degree. Auxiliaries work in such school fields as teaching, counseling, and library and vocational studies. In addition, they supervise "youth tutoring youth" components, helping low-achieving youngsters improve their own self-image and learning by tutoring younger children.

Close to 10,000 COP auxiliaries are participating in some 130 fiscal year 1970 urban and rural school-university based training projects in groups numbering in size from 20 to 340. The fiscal year 1970 level of support totals $24.3 million. Each COP project has been designed in partnership between local school systems, community organizations and agencies, community colleges and nearby universities, with school districts taking the lead and State education agencies providing technical assistance.

Emphasis is being placed on recruiting men for COP projects (particularly Vietnam era veterans in an expansion of BEPD's 2-year-old Veterans in Education Program.) During fiscal years 1968 and 1969, some 300 Vietnam veterans were recruited and trained for careers in inner-city schools in Washington, D.C.; Miami, Fla.; Omaha, Nebr.; New York City; Cleveland, Ohio; and Memphis, Tenn. During fiscal year 1970, some additional 3,500 Vietnam era veterans are beginning their careers in education in local Career Opportunities projects.

Career Opportunities builds, too, on 14 other local pilot training projects funded under BEPD's commitment to Model Cities areas in fiscal year 1969. Among these were teacher aide training programs for community recruits in Richmond, Calif., and for low-income Mexican-Americans in Trinidad, Colo.; training projects for special service aides in Baltimore, Md.; programs to prepare Spanish-surnamed Americans to move quickly through a career ladder to become bilingual teachers for Philadelphia, Pa., schools; training about the life styles of low-income blacks, whites, and Puerto Ricans for teachers, school administrators, and school board members of Highland Park, Mich.; and attitude-change project for supervisors and teachers who work with Mexican-American youngsters in Waco, Texas; and a St. Paul, Minn., project to train regular teachers to work with atypical children. Models for the Youth Tutoring Youth program were first tested in fiscal year 1969 in San Diego, Calif.; Hartford, Conn.; Springfield, Mass.; and Philadelphia, Pa.

The Teacher Corps was established by the Congress in 1965 to increase the educational opportunities for poor children by enabling colleges and universities to improve the ways in which teachers are trained, and to permit school districts to improve the ways in which teachers are used. The training and use of teacher-interns in teams led by an experienced teacher are the means by which new approaches are introduced and tested. This has proven to be a workable strategy for accelerating the adoption of educational change, and the Teacher Corps has also become a vehicle for the dissemination of promising ideas developed by the National Center for Educational Research and Development, the Office's regional laboratories and others.

In fiscal years 1969 and 1970, as in previous years, the emphases which the Teacher Corps has attempted to establish in its programs are a catalogue of these developments: in the universities, interdisciplinary involvement in educational research and training, relevant course-work, new instructional techniques, competency-based education; in the schools, team teaching and differentiated staffing, individual tutoring, the introduction of new curriculums, and community involvement which increases parents' interest in their children's education. These emphases are intended to change educational systems, to increase awareness of the actual conditions under which poor children are expected to learn, and to encourage institutions to seek new ways to best prepare teachers to serve these children.

Institutional change is difficult to measure, but there is evidence that the Teacher Corps approach, with its insistence on close participation by State education department, university, school, community and others, does work. In the fall of 1969, all universities and school districts with Teacher Corps programs were surveyed to determine what changes Teacher Corps had brought about. The answers showed that there had been a major break in the academic isolation in which schools of education had operated, and that similar advances have been made in the local schools, though not to the same degree.

Teacher Corps activities during fiscal years 1969 and 1970 have included programs to prepare teachers for work with children who speak little or no English, and to overcome the effects of the unsettled lives of migrant families which pathetically reduce the amount and quality of education their children are able to receive. Also, the use of Teacher Corps programs to complement or stimulate other local efforts has been encouraged. Programs have been developed in cooperation with State and other Federal programs such as Model Cities, the Peace Corps, VISTA, the Office of Economic Opportunity, the Manpower Development Training Act of the Labor Department, the Office of Juvenile Delinquency, DHEW and others.

The primary purpose of the Teacher Corps is not to produce teachers but to help change the way teachers are prepared and the way they teach. However, the teachers who have graduated from its programs have been quite special. Surveys of those who graduated in 1968 and 1969 show that they are staying in education, and particularly in poverty-area schools, at rates well above the national averages. Team leaders, who are also serving their own internships for new roles in education, have moved on to supervisory or administrative positions in significant percentages. In addition, the Teacher Corps has been able to attract members of minority groups to service in far higher percentages and numbers than other federally-sponsored voluntary programs. This percentage rose from 25 percent in 1966 to 47 percent in 1969.

Also directed to the goal of improving education for economically deprived youngsters is the Correctional Education Program. Through this program, BEPD provides support ($28,000 in fiscal year 1969 and $150,000 in fiscal year 1970) to NEPIC (Nationwide Educational Programs for Institutionalized Children), which is administered by the Bureau of Elementary and Secondary Education. This program represents a joint effort by the two bureaus to improve educational programs for delinquent children by training the total staff of correctional institutions in regional training centers.

During fiscal year 1969, the program was planned on the basis of a study to determine the social and organizational climate in institutions for delinquent children and how these factors affect their educational training. In fiscal year 1970, programs are being mounted in three institutions of higher education (which will serve as regional centers in the East, Mid-West, and Far-West) to provide training for staff of 18 correctional institutions. These institutions represent a geographic and socioeconomic sampling of the 424 such institutions which receive funds under title I of the Elementary and Secondary Education Act.

The training projects, which are individually prescribed according to State priorities and institutional needs, may take place in the regional centers or any of the 18 participating institutions, or both. The training arrangements, which are quite flexible, include team approaches, a vocational education component, community and parental involvement, and practicum experiences with delinquent children in actual classroom settings. Participants in the program are all persons who have responsibility for training delinquent youth, whether their roles be formalized (i.e., teachers, administrators, social workers, nurses, etc.) or less structured (i.e., cottage parents.)

It is hoped that eventually all of the 424 above-mentioned institutions will benefit from this effort which has great potential in preparing the court-adjudicated delinquent to take his place in our society as a useful contributing member.

During fiscal year 1969, half the projects funded under the Basic Studies Program were directed to meeting the needs of low-income children. This program supported training of teachers and other educational personnel who were concerned with learning more about a particular academic discipline and how to teach it in the schools. Nearly 300 projects were conducted for more than 16,000 participants at a cost in excess of $20 million. Half of the projects, costing about $10 million and serving about 8,000 participants, were directed to teachers of economically deprived children. In fiscal year 1970 the focus of the program was narrowed considerably with concentration on four priority areas, two of which, bilingual education and reading are of particular relevance to teaching the low-income youth.

Projects in bilingual education have focused on the training of teachers and other personnel for schools which use two languages as mediums for teaching and learning all or a significant part of the regular experiences and subjects of the curriculum. The languages are English and the mother or home language of the target pupils. As an example, a fiscal year 1970 project in bilingual education in the Philadelphia Public Schools provides training for 40 Spanish-speaking persons who received their education and teaching experience abroad. This training will lead to certification for teaching the regular school subjects through the medium of Spanish to Spanish-speaking children in Philadelphia's schools. The project is also preparing filmed and printed materials to help non-Spanish-speaking teachers and administrators deal more fairly and effectively with Puerto Rican children.

During fiscal year 1970 all projects in reading are directed to teachers and other educational personnel who work in inner-city schools. Because of the very close relationship between reading and language, reading projects focus on this relationship.

For example, Portland State University and the Portland schools are cooperating in an inservice training project in reading for elementary teachers. Teachers in five inner-city schools are involved, as well as principals and supervisors. The intent is to make curriculum leaders out of the teachers so that they can then work with other teachers. Parents are also involved in working with the teachers.

Other EPDA Programs to Meet Critical Shortages and Special Needs

Other programs supported under EPDA, although not entirely targeted to low-income youth, have, during fiscal years 1969 and 1970, given priority to projects which benefit these youngsters.

The Personnel Services Staff Program supports projects to increase the competence of individuals who are serving or intend to serve specialized personnel functions in elementary and secondary schools. Its primary objectives are to increase the supply of well-qualified pupil personnel specialists available to serve in the schools, particularly those in low-income areas, and to improve preservice and inservice training programs for pupil personnel specialists. Approximately 40 percent of the training projects for Personnel Services Staff gave special emphasis to the economically deprived in fiscal year 1969. More than one-third of the participants in these projects were recruited from minority groups, and about half of all participants in pupil personnel service projects were from the low-income population. The 1970 projects place more emphasis on improving the qualifications of pupil personnel workers in rural and urban schools, particularly those with a large proportion of children from low-income families. Approximately 45 percent of the training projects serve the low-income population and about 45 percent of the participants in these projects are recruited from minority groups.

The Teacher Development for Desegregating Schools Program became operational for the first time in fiscal year 1970. It is focused on strengthening the teacher training capacity of black colleges and on increasing the ability of inservice educational personnel both in subject matter competence (language arts, mathematics, and black studies) and in their ability to perform effectively in interethnic and cross-cultural school and community settings.

Although this program is primarily directed to the predominantly black colleges and will of necessity touch large numbers of children from low-income families, it has an additional thrust of interethnic and cross-cultural training that may go beyond the low-income school to prepare teachers in schools of all socioeconomic levels. The basic needs of many of the teachers in newly desegregated schools go beyond the cognitive to include the affective area. The bringing together of professionals of divergent cultural and ethnic backgrounds enables them better to function in cross-ethnic settings when this is consciously a goal of the contact. The need for general professional upgrading of teachers in the South is not limited to any one ethnic group. Superior teachers and poorly qualified teachers are found in all races and in all sections of the country including the South. The TDDS Program must not, therefore, be viewed primarily as a program to qualify black teachers to teach white children. Experience supports the view that federally supported programs at black colleges serve a uniquely useful purpose in bringing together in a black setting, teachers who otherwise would not have such contacts, perhaps not in a lifetime. The program's usefulness, therefore, as an instrument of Office of Education policy in school desegregation is clearly validated.

Projects include both short-term institutes and long-term fellowship programs; the latter follow the structure of the MAT program. Participants include teachers, administrators, supervisors, and trainers of teachers who are assigned to desegregating schools. Participants are trained in teams and are expected to extend their knowledge by conducting training sessions for other personnel in their home schools.

In fiscal year 1970, 26 projects are being supported in 22 black colleges distributed by subject matter as follows:

Language Arts, including reading	14
Afro-American Studies	6
Mathematics	6

It is expected that the program will initially reach 1,200 participants in fiscal year 1970 and, through inservice demonstration classes, seminars, regular classes and discussion, an additional 5,000 participants.

The Trainers of Teacher Trainers Program (TTT) provides a process for engaging the full resources of universities, schools, and communities in creating effective new cooperative institutional arrangements for preparing educational personnel. To this end the program supports projects in institutions of higher education, and in local and State education agencies designed to strengthen the preparation of key agents of change: the individuals who teach or lead, or who aspire to teach or lead, as well as teacher trainers and those who train teacher trainers. During fiscal years 1969 and 1970 major emphasis of the TTT Program and virtually all of the projects it supports has been to enable university teachers and high level supervisors and administrators to prepare trainers of teachers, and through them teachers, who can deal effectively with the educational problems of low-income youth. This concern is reflected in the instructional programs, in the practical or clinical experiences provided, and in the administrative structure of the projects themselves. To insure the relevance of these projects, community representatives, particularly from low-income areas, serve on planning and administrative committees and often assist in the instruction of the participants. Nearly all participants in TTT programs are specifically prepared to provide special training to their students—the future classroom teachers—to meet the problems of educating underprivileged children.

The Educational Leadership Program (formerly the Educational Administration Program) supports projects to increase the competency of elementary and secondary school administrators. Its primary objectives are twofold: (a) to identify, recruit, and train personnel for positions in school administration, especially in high risk inner-city schools, from new and varied manpower sources, and (b) to increase the flexibility of institutions to train administrators by programmatic and structured changes achieved through cooperative arrangements between local and State education agencies and institutions of higher education. During fiscal years 1969 and 1970, about 40 percent of the projects gave special emphasis to the problems of low-income students, particularly those located in inner cities. Fifty percent or more of all participants were from minority and other underprivileged groups.

Another BEPD program which contributed to the effort to improve education for children from low-income families is the Media Specialist Program. Media Specialist projects train specialized personnel to assist elementary and secondary school teachers in designing, selecting, producing, and employing media for classroom use. By their very nature, the new educational media, unlike the printed word, are means of visual and aural communication which are basic to the life of the economically deprived. A principal emphasis of the media program has been to train personnel to assist teachers in predominantly low-income school areas to employ sight and sound more creatively as means of instruction.

The School Personnel Utilization Program has funded projects in fiscal year 1970 to include several schools which are identified as part of model cities, Career Opportunities, or ESEA Title I target areas. These projects, in rural and urban schools in economically depressed areas, are formulating new school staffing patterns which will ultimately free teachers to assist in learning efforts of their children.

Projects are being supported under part F of EPDA for the first time in fiscal year 1970 through the Vocational Education Program. Until this year, this program had been supported under EPDA parts C and D only. Under part F, at least 50 percent of all funds allocated for vocational education training are committed to model cities designated areas. Section 552 of part F provides grants to institutions of higher education to support doctoral work for prospective leadership personnel in vocational education. Under section 553, which provides grants to State boards of vocational education to train personnel for the schools, particular attention is being directed to providing programs for junior and community college personnel.

The needs of low-income youth have also been served through the State Grants Program which, under part B-2 of EPDA, provides grants to the States to attract and train teachers and teacher aides to meet critical shortages. A top priority in a majority of the States has been the preparation of personnel to serve economically and culturally deprived youngsters. In fiscal year 1969, for example, 265 projects—63 percent of the total—focused on the needs of these students, including American Indian and Spanish-speaking children.

The Early Childhood Program is designed primarily to contribute to the reduction of critical shortages of personnel in this field. Early education, particularly of children of low-income families, offers one opportunity for preventing the intellectual, emotional, and social problems that tend to be, at least in part, attributed to an impoverished environment. To this end, the Early Childhood Program during fiscal years 1969 and 1970, cooperated directly with the Follow Through and Federal Panel 4–C Program, supported projects for personnel preparing to work with low-income youngsters, and encouraged project directors to select as participants personnel who represents segments of the underprivileged population.

The purpose of BEPD's Special Education Program is to train regular classroom teachers, trainers of teachers, and other regular education personnel to deal effectively with handicapped children in the regular classroom. Special emphasis has been given to training these personnel to work with handicapped children from economically deprived backgrounds.

In fiscal year 1970, BEPD established the Drug Education Training Program, uniquely designed to provide virtually every teacher and school administrator in the country with training in at least the fundamentals of a drug abuse education program. Within this overall goal, the program aims to make educators and community leaders aware of the dimension of the problem, to train teams of drug educators, and to stimulate the development of preventive programs at the local level. The program, to which $3.5 million was committed during fiscal year 1970, is based on Federal, State, and local commitment of support and resources. Through its mobile concept and multiplier effect, it is designed to reach all 50 States. This program is designed to help all youth threatened by the drug problem; many of these youngsters are among the low-income population.

EPDA, part E

The provisions of part E of the Education Professions Development Act were intended to "improve the quality of teaching and to help meet critical shortages of adequately trained personnel" in institutions of higher education.

Although this part of the act was directed to the improvement of higher education at all levels, a primary concern was with the 2-year colleges. Within the Bureau of Higher Education, part E of the act has been administered by the Division of University Programs, (formerly called the Division of Graduate Programs), which is responsible for the fellowship programs, and the Division of College Support, which is responsible for institutes, short-term training programs, and special projects.

A number of broad national priorities were established for the part E program in the spring of 1968. These priorities, which have been reflected in guidelines, have remained unchanged throughout fiscal years 1969 and 1970. They are:

(1) Programs to train teachers, administrators, or educational specialists to serve in 2-year colleges.

(2) Programs to prepare educational personnel who are concerned with the needs of minority and low-income college students from educationally deprived backgrounds.

(3) Programs to train educational personnel to serve in developing institutions.

(4) Programs to train administrators in higher education with important decisionmaking functions for long-range and short-range planning.

(5) Programs to improve undergraduate teaching.

(6) Programs to train educational specialists.

As funds available under part E for fiscal years 1969 and 1970 have been limited ($6.9 million and $10 million respectively), the program has been focused during these years on the first three of the six national priorities listed above. Although priorities 4, 5, and 6 have not been neglected, a large portion of part E funds have been allocated to the first three priorities.

Due to the need to focus the thrust of the part E program in fiscal years 1969 and 1970, certain other objectives were entirely excluded from the program. First, it was decided that programs to train higher education personnel whose primary mission would be in the field of elementary or secondary education should be supported under parts C and D of EPDA rather than part E. Second, part E would not support training programs for higher education personnel in postsecondary occupational or vocational programs at the junior college or technical institute level. Instead, this area of training would be covered under part F of EPDA. Third, training programs in science or foreign language and area studies which are eligible for support from the National Science Foundation or under title VI of the National Defense Education Act and the Fulbright-Hays Act would not be supported under part E. In this way, an effort was made to avoid as much as possible duplication with other Federal programs for training higher education personnel.

The fiscal year 1969–70 emphasis on the three priority areas in higher education—junior colleges, low-income students, and developing institutions—is reflected in the types of fellowship programs, institutes, short-term training programs and special projects funded during that period. In fiscal year 1969, of the total $6.9 million appropriated for part E, $2.2 million was allocated in support of fellowship programs. These included the following types of graduate programs: (1) graduate training programs at all levels for college teachers (except doctoral programs eligible under NDEA title IV for college teachers), and (2) graduate training programs at all levels for non-teaching higher education personnel, e.g., administrative, admissions, counseling and guidance, and other nonfaculty higher education specialists. In all, 51 fellowship programs were supported at 50 graduate institutions, providing training for 408 graduate students (326 in 2-year programs and 82 in 1-year programs). Many of the fellowship programs were designed for training college teachers in various subject matter fields and the majority of these programs were specifically for the training of junior college teachers. In addition, 15 of the fellowship programs provided training for 124 students (about 34 percent of the fellows supported under part E in fiscal year 1969) preparing to work with low-income college students.

The part E EPDA institutes, short-term training projects, and special projects were also largely focused in fiscal year 1969 on the needs of junior colleges, developing institutions, and economically deprived students. In that year, $4.7 million was allocated in support of 78 institutes, short-term training projects and special projects. About 38 percent of the total funds supported programs to train only junior college personnel, while almost 30 percent of the funds supported programs to train personnel to work with low-income youth. In addition, about 25 percent of the funds supported the training of personnel to serve in developing institutions.

In the second year of the program, fiscal year 1970, the part E program placed even greater emphasis on the three national priorities—junior colleges, low-income students, and developing institutions. In this fiscal year, $5 million was allocated to 77 fellowship programs at 73 universities in support of 902 fellowships, 326 of which were second-year awards, and 567 of which were new awards. Of these new awards, 420 were for 2 years and 156 were limited to 1 year. A large portion of these fellowships will support persons preparing for junior college teaching, and 326 of the 902 fellowships (or about 36 percent) will support persons being trained during 1970–71 for work with minority and low-income college students from educationally deprived backgrounds.

A total of $5 million was allocated in fiscal year 1970 in support of 93 institutes, short-term training projects and special projects. In an effort to obtain greater impact with a limited amount of funds, fewer full-time academic year institutes were supported and more short-term training programs were funded than in the previous year. The amount allocated to train junior college personnel increased; over 50 percent of the $5 million supported training programs for them. In a further effort to strengthen junior colleges, many more direct grants to 2-year institutions were made in 1970 than in 1969. Twenty-two such grants were made totaling almost 19 percent of the funds allocated. About 61 percent of the 1970 funds supported the training of college personnel to serve the needs of minority and low-income students from academically deprived backgrounds. Increased attention was given to training college teachers in remedial reading as part of the Office of Education's goal of improving reading throughout all levels of education. About 30 percent of the funds awarded for institutes, short-term training projects and special projects supported the training of personnel of developing institutions. Grants to black colleges increased; 10 such grants were made totaling 18 percent of the funds awarded.

During fiscal years 1969 and 1970, other areas of higher education also received attention. Some programs provided preservice and inservice training for college administrators and student personnel workers in 4-year institutions (other than developing institutions). In 1969, part E administered two areas of training which had previously been funded under other Federal legislation—the training of college faculty in the use of educational media and the training of college counselors and other student personnel workers. In fiscal year 1970, however, it was decided to deemphasize training in educational media in favor of other areas of greater need. Support for the training of student personnel workers was continued, especially in relation to the needs of the underprivileged, junior colleges, and developing institutions. In addition, in 1970 a small portion of the $5 million allocated for institutes, short-term training projects and special projects was directed to the following newly emerging needs in higher education: the training of college personnel in cooperative education, the special needs of veterans in higher education, and the training of student financial aid administrators.

In addition to increasing the number of qualified personnel in important areas of higher education, it is expected that support under part E will result in (1) strengthening of instruction, administration and student services in junior colleges and developing institutions, and (2) greater opportunities for minority and low-income students to obtain a college education. It is also hoped that graduate programs for training personnel in these critical areas will be strengthened and expanded and that new types of programs will be developed, whether they be graduate degree programs or short-term institutes, which might serve as models for meeting urgent needs in higher education. Direct grants to junior colleges should encourage them to take the initiative in developing statewide or regional programs to meet their needs and to seek support for these projects not only from part E but from other Federal programs as well. Although the amount of part E funds allocated is very small in relation to the needs for training, a portion of these funds should serve as seed money which will encourage establishment and continuation (even after Federal support is discontinued) of training programs in various areas of need. A comprehensive evaluation and followup is planned for all participants in part E fellowship programs and special projects in order to obtain a realistic view of the actual outcomes of these training programs.

TABLE A–1.—Number and Percent of Persons Who Teach in Public Schools and Their Full-time Equivalence in Teaching by School Level and Location and by Employment Status, Aggregate United States, Fall 1968. [1]
(in thousands)

Employment status in individual schools:	All schools [2]	School level and location					
		Elementary			Secondary		
		Total	In large cities	In other places	Total	In large cities	In other places
Number of persons teaching [3]	1,980	1,060	230	830	890	170	720
Full-time equivalence (in teaching) of the number of persons teaching	1,820	950	220	740	840	160	690
Number of persons full-time in one school and teaching	1,810	940	210	720	840	160	680
Full-time equivalence (in teaching) of persons full-time in one school	1,760	910	210	700	820	160	670
Number of persons part-time in one school and teaching	170	119	20	100	50	(4)	40
Full-time equivalence (in teaching) of persons part-time in one school	60	40	10	40	20	(4)	20
Employment status in individual schools:				(percents)			
Number of persons teaching [3]	100	100	100	100	100	100	100
Full-time equivalence (in teaching) of the number of persons teaching	92	90	95	89	94	94	95
Number of persons full-time in one school and teaching	91	89	92	88	94	98	84
Full-time equivalence (in teaching) of persons full-time in one school	89	86	91	84	92	94	92
Number of persons part-time in one school and teaching	8	11	7	12	5	(4)	6
Full-time equivalence (in teaching) of persons part-time in one school	3	4	4	5	2	(4)	3

[1] The figures shown in this table may differ slightly from those published in *Fall 1968 Statistics of Public Schools* (OE–20007–68).

[2] The sum of employees at the elementary and secondary school levels may not equal the total for all schools. The latter includes staff of combined schools with classes at both levels.

[3] Totals may not add figures for all schools or to 100 percent because of rounding; each cell is estimated independently.

[4] Number is less than 1 percent of total for column.

SOURCE: U.S. Office of Education, National Center for Educational Statistics, School Staffing Survey (pilot).

TABLE A–2.—Number and Percent of Persons Who Teach in Public Schools and Their Full-time Equivalence in Teaching by School Level and Location and by Employment Status, Aggregate United States, Fall 1968.[1]
(in thousands)

Type of staff (full-time equivalent)	All schools	Total elementary [2]	Total secondary	School level [1] and location			
				Elementary		Secondary	
				Large city	Other area	Large city	Other area
Teaching staff							
Teachers per 1000 pupils (prekindergarten-12)	42.1	38.0	48.3	39.0	37.8	43.3	49.6
Teachers per 1000 pupils (1–12)	42.1	37.8	48.3	38.6	37.6	43.3	49.6
Kindergarten teachers per 1000 kindergarten pupils	44.6	44.6	(2)	43.2	45.2	(2)	(2)
Physical education teachers per 1000 pupils (1–12)	2.0	1.0	3.5	1.0	1.0	3.6	3.4
Supporting Staff							
Librarians and kindred staff per 1000 pupils (kindergarten–12)	1.0	0.8	1.4	0.8	0.8	1.0	1.5
School counselors per 1000 pupils (1–12)	1.2	0.3	2.3	0.5	0.3	2.2	2.4
School community workers and kindred staff per 1000 pupils (prekindergarten–12)	0.1	0.1	0.1	0.3	0.1	0.1	0.1
All school-based professionals other than health per 1000 pupils (prekindergarten-12)	47.1	42.0	55.0	43.9	41.4	49.6	56.4

[1] The sum of employees at the elementary and secondary school levels may not equal the total for all schools. The latter includes staff of combined schools with classes at both levels.

[2] Not applicable.

SOURCE: U.S. Office of Education, National Center for Educational Statistics, School Staffing Survey (pilot).

APPENDIX B

An Explanatory Note on the Supply of and Demand for Educational Personnel

In the last few years, several national reports have asserted that the general teacher shortage which has been with us for some 30 years is finally coming to an end. The 1970–71 school year is the first in which there will be a general surplus instead of a shortage of teachers. Any discussion of the teacher supply-demand situation, however, should take into account two major considerations.

First, predictions are based on past trends and assume existing national teacher-pupil ratios, current staffing patterns, and qualifications for teachers set forth in current State certification standards. Not only will different kinds of people be used in many new kinds of roles during the 1970's, but it is also likely that the commitment of staff to meet the the special needs of students from low-income families will sharply increase. Since these new staffing patterns are only now developing and new ways of meeting the special needs of students are only beginning to be employed, predictions do not take them into account.

Second, predictions are based on limited data for the United States as a whole for all elementary and secondary teachers. These gross figures provide little data for local and regional areas where critical shortages continue to exist. Although the reports, including the first Commissioner's report on the *Education ProfessionsJ1968*, conclude that the overall shortage of teachers is coming to an end, they are unable to put this shortage in any perspective other than a national one. One of the most prestigious Government reports, "Manpower Report of the President," transmitted to the Congress on March 26, 1970, predicts the end of the shortage from this same national standpoint:

> The shortage of elementary and secondary school teachers, a source of wide concern in communities throughout the country as recently as 1966–67, was much reduced in 1969. . . . (The) number of new college graduates seeking to enter elementary school teaching during the 1968–1980 period as a whole could be nearly double the projected demand, and the number seeking secondary school positions could be nearly 75 percent above requirements. Whether any such oversupply of teacher candidates actually develops will depend in large measure on how well young people are apprised of the employment outlook in teaching and the extent to which they act as "economic men" (and women) in their choice of profession. (pp. 170, 171.)

However, in looking at the supply and demand for the United States as a whole, "shortages" in some communities cancel out "surpluses" in other communities. Also, if we examine all secondary teachers as a group, it is not possible to ascertain whether teachers in a given discipline such as mathematics, are in short supply, or if teachers in other disciplines are "overabundant." *Teacher Supply and Demand in the United States,** published annually by the National Education Association, provides much detail on the supply-demand situation for classroom teachers in 1969–70. By refining data by geographic areas (States) and by type of assignment, it illuminates substantially the gross statistical results for the Nation as a whole. Consequently, it has more educational relevance than do reports which present the data only from a national labor marked standpoint.

The NEA report is based upon two surveys. The source for the first was the person in each State education agency responsible for teacher education and certification. He was asked for his general impression of the supply-demand and certification. He was asked for his general impression of the supply-demand situation for teachers in his State during the last week in July 1969. The second survey covered personnel directors of the Nation's 80 largest school system, each with at least 50,000 pupils and collectively employing 20 percent of the public school teachers in the United States. These respondents were asked about supply-demand conditions within their systems by major assignment category during the last week of July 1969. In particular, they were asked the extent of difficulty they had encountered in filling teaching positions for 1969–70, whether they had employed persons with substandard qualifications, and the number of unfilled positions that existed at that time. Trends in supply-demand relationships are interpreted and made more meaningful by data from these surveys.

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* Research Report 1969–R14. Washington, D.C. Research Division, NEA.

According to the NEA report, an estimated 216,000 "new" teachers will have been employed during the 1969–70 school year. About half are for elementary schools. Of the total, 54,000 are required to meet increased enrollment, decreased pupil-teacher ratios, and added professional services; and the other 162,000 will replace the previous year's teachers who left their positions. The estimated supply of new teachers, based upon past trends, is 255,000, roughly half elementary and half secondary. The expected supply of elementary teachers exceeds the expected demand by 16,000 persons, and the expected supply of secondary teachers exceeds the expected demand by 23,000 persons. In the national aggregate, then, the NEA survey points to a surplus of 39,500 teacher position candidates over available positions during 1969–70.

The NEA data are summarized below:

	Elementary	*Secondary*	*Total*
Staff requirement of increased enrollment	20,000	34,000	54,000
Teacher turnover (replacement)	87,400	74,300	161,700
Total demand for new teachers	107,400	108,300	215,700
Estimated supply of new teachers	123,600	131,600	255,200
Surplus of new teachers	16,200	23,300	39,500

Tables A–3 and A–4 reflect projections made by the U.S. Office of Education's National Center for Educational Statistics in June 1970. They are more recent than the NEA estimates and are based on slightly different assumptions.

Table A–3.—Actual and Projected for New or Replacement Teachers and Actual and Projected Supply by Selected School Years, 1960 through 1978*

	COLUMN I	COLUMN II	COLUMN III	COLUMN IV	COLUMN V
		SUPPLY		SUPPLY	
Year actual	Total estimated demand for new or replacement teachers-fall of school year	B.A.'s & first-professional degrees spring preceeding the fall	Number prepared as teachers—37% of col. II	Number normally going to teaching—71% of col. III	Estimated projected surplus col. 5 minus col. 1
1960–61	166,000	-------	-------	-------	
1965–66	194,000	-------	-------	-------	Undersupply
1968–69	236,000 (peak year)	666,700	246,679	175,000	61,000
Estimated					
1969–70	200,000	755,000	279,350	198,000	2,000
Projected NCES					Oversupply or surplus of teachers
1970–71	183,000	772,000	285,640	203,000	20,000
1971–72	177,000	801,000	296,370	210,000	33,000
1972–73	173,000	825,000	305,250	216,000	44,000
1975–76	172,000 (nadir)	928,000	343,360	243,000	72,000
1978–79	177,000	1,029,000	380,730	270,000	93,000

* Source: National Center for Educational Statistics, June 1970.

Table A-4.—Actual and Projected Demand for New and Replacement Teachers Due to Turnover and Enrollment Increases, Selected School Years, 1960 through 1978*

	DEMAND		
	Additional teachers needed over previous year		
		Demand due to:	
Year	Total demand	Turnover	Enrollment increase
1960–61	166,000	108,000	53,000 (plus 5 substandard)
1965–66	194,000	132,000	62,000
1968–69	236,000 (peak year)	148,000	88,000 (peak year)
1969–70	200,000 (downward trend began	155,000	45,000 (downward trend began)
1970–71	183,000	159,000	24,000
1971–72	177,000	161,000	16,000
1972–73	173,000	162,000	10,000
1975–76	172,000 (nadir)	165,000	7,000 (nadir)
1978–79	177,000	167,000	10,000

*Source: National Center for Educational Statistics, June 1970.

The projections in tables A–1 and A–2 do not include the effects of returning teachers. Obviously a number of openings are filled from this source. In addition, if the general economic and employment conditions persist, there will be even greater pressure for ex-teachers to return to teaching. Men will turn to teaching when industry slackens and women will return to supplement family incomes when overtime wages are reduced.

The effects of the draft and the end of new deferments for teaching are not included in the projections. Also, changes in utilization of educational personnel through the increased use of aides are not included. Furthermore, the projections are made on the assumption that past ratios of the various columns will continue unchanged.

The extremely late passing of Federal education funds this year significantly retarded State and local educational budgets. Thus school districts are unusually slow in determining the number of employees for next year. In addition, the general surplus of qualified teachers has allowed school officials to be more deliberate and less hurried in their new employments.

The general economic slowdown and the unusually high rate of inflation have forced teachers to demand higher salaries though additional funds are not available. This is beginning to result in a reversal of the trend of lower pupil-teacher ratios. Teachers are willing to accept larger class loads in some places in return for higher salaries, as a result, fewer teachers are hired and replaced.

Reduced opportunities in business and industry have led general students to compete for teaching jobs. Business cutbacks have caused scientists to enter the science teaching market —and their wives to return to teaching. Moreover, the cooling of the economy has led some schools to postpone anticipated growth, and some schools to actually reduce staff for next year. Bond issue failures are on the increase.

While placement officers generally report that last year's difficulties in placing teacher graduates are growing, recruitment officers report satisfaction with the increased supply of applicants and the consequent opportunity to be more selective in hiring. With the increased availability of applicants in many fields, school employers tend to delay hiring decisions and will continue the hiring process into the summer. Thus many anxious graduates will still be placed.

The new graduate's problem of finding employment is a real one. Fewer jobs are available.* Employers are choosing more carefully. Many graduates will eventually accept positions they would not have considered earlier. Many will go farther from home. Some, dissatisfied with the job situation, will go on to graduate school if they can afford it. However, with the cooling of the economy, placement directors report that the advanced graduates who might command higher salaries are finding fewer opportunities than persons with only the bachelor's degree. The real situation will not become clear for some time yet. Placement directors indicate that successful candidates are slow to report their placements. This will continue as appointments are made after schools and colleges are closed for the summer.

Curiously, the supply of teachers is somewhat inflated by certain groups not previously available for teaching. Many youths over the years have attended the less expensive public teacher colleges even though they had little interest in teaching. With other avenues closing, such youth turn to teaching. Liberal arts majors who entered college with no interest in education, are now applying for teaching positions. The Alternate B Examination in New York City which permits college graduates to qualify to teach with only 12 hours of professional education including psychology, is being exploited by liberal students who now compete with those who originally prepared to teach.

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* March 9, 1970 Press Release from College Placement Council which reported that openings for *all* college graduates for *all* fields for *all* degrees has dropped for this mid-year point over last year:

DOWN: 16 percent B.A.
DOWN: 26 percent M.A.
DOWN: 14 percent Ph.D.

The effects of industry lay-offs may be expected to continue. Many people in business, industry, government, and even in professional associations are looking to education as their jobs are eliminated or as their opportunities seem to fade. It is not unusual in such areas as the West Coast where unemployment is extensive for wives to return to teaching so their husbands can remain in the vicinity in hope that their old jobs will reopen.

The postwar baby boom and the greatly expanded college enrollments have resulted in a very large number of new qualified teachers, especially in the popular subject areas. This, combined with the recent cooling off of the economy had made the supply and demand situation for teachers a matter of unusual concern. During the last part of 1970 the extent of the problem should be much clearer. In the 1930's, there was a comparable combination of an economic slowdown and a surplus of teachers. At that time the fourth year of high school was added. The current surplus may be an opportunity to increase the quality of educational personnel in traditional critical shortage areas and to also expand early childhood and adult education programs.

Discernible "Shortage" Categories of Teachers

Despite the surplus predicted from these nationally aggregated statistics, the NEA survey found shortages of applicants (substantial or "some" shortages) reported in July 1969 by a total of 14 States. The number reporting shortages was down from 22 the previous year, and 33 and 31 in the two preceding years. A balance or surplus situation was reported by three States in 1969. Thirty-two additional States reported shortages in some subject areas and surpluses in others. States generally reported shortages of applicants for jobs in rural areas. Less than half the States reported shortages in small cities or in large central cities. Only seven States reported shortages of applicants for jobs in suburban areas.

The NEA report lists by assignment 3,400 positions still unfilled in the large school systems in July 1969. These include positions for 1,140 regular elementary classroom teachers, 627 special education teachers, 398 mathematics teachers, 288 industrial art teachers, 205 "remedial reading, speech, etc." teachers, and less than 200, but more than 100, in each of the following areas: "trade, industrial, vocational," "natural and physical sciences," women's physical education, instruction of the educationally disadvantaged, and librarians. The total number of unfilled positions, including those listed above was 4,000 in the 76 large school systems reporting. Nationally, the NEA estimates that shortage situations were in effect for mathematics teachers, natural and physical sciences teachers, and teachers in trade, industrial, vocational and technical education.

Needs in Excess of Current Demands

It is important to recognize that the supply-demand analysis is a labor market analysis. It is concerned with job openings for teachers and the supply of persons to fill these job openings. "Demand" is defined by budgets. It is somewhat arbitrarily limited by fiscal capacity as perceived by the political decisionmakers and therefore does not measure total need. Indeed it only implicitly reflects concerns for the quality of education or equalization of educational opportunity. Both the National Education Association and the National Center for Educational Statistics (U. S. Office of Education), independently, have begun to develop analytic models which go beyond the supply-demand analysis and which are intended to have direct relevance for educational practice. The statistical refinements being sought will have relevance at the local, State, and Federal levels. At the State and local levels they will help administrators and others decide what kind of staff are needed, in what numbers, and in what schools. At the Federal level these refinements will help clarify possible program choices and suggest trade-offs for consideration within limited budgets. As a hypothetical example, trade-offs may be considered between programs to enable teachers effectively to shift between subject-matter areas and grade levels.

The NEA's second estimate of demand is based upon normative standards:

> The *Quality Criterion Estimate* is based on the number of new teachers needed to achieve immediately a standard for *minimum* quality in the staffing of public school classrooms. The following are discussed separately as components of this estimate: (a) the number of new teachers needed to fill new positions being created to accommodate enrollment changes; (b) the number of new teachers needed to replace the teachers who are interrupting or terminating their careers; (c) the number of teachers having substandard professional qualifications who need to be upgraded or replaced; (d) the number of new teachers needed to reduce overcrowded classes to reasonable maximum sizes; and (e) the number of new teachers needed to provide adequate staffing of new educational offerings, added special instructional services, and reorganization for instruction.
>
> The *Quality Criterion Estimate* of teacher demand should be useful to the teaching profession, civic leaders, public officials, and research analysts in assessing the manpower requirements for attaining minimum quality in public education. This estimate shows the demand for teachers required by a minimum level of quality in the staffing practices applied to all classrooms without consideration to the obstacles to attaining this standard immediately.

The Quality Criterion Estimate consists of the two sources of requirements—increased enrollment and replacement needs, comprising the total demand for new teachers discussed above—and three additional components. The estimates from all five sources are:

	Elementary	*Secondary*	*Total*
Staff requirement of increased enrollment	20,000	34,000	54,000
Teacher turnover (replacement)	87,400	74,300	161,700
Replacement of teachers having substandard qualifications	67,300	7,600	74,900
Reduction of overcrowded classes	10,400	8,900	19,300
Special instructional services	105,850	67,650	173,500
Total number of new teachers required by the Quality Criterion	290,950	192,450	483,400
Estimated supply of new teachers	123,600	131,600	255,200
Shortage of new teachers	167,350	60,850	228,200

Comparing the expected supply of new teachers with teacher requirements estimated according to the Quality Criterion reveals "shortage" approximating one quarter million teachers. It may be noted that the two major sources of the high teacher requirements are for replacement and for special instructional services. The latter "enlarge the scope of educational offerings, and provide special programs for pupils having special learning needs (physically, mentally, and emotionally handicapped, the culturally disadvantaged, etc)."

Similar statistical analysis, based upon preferential standards, has been under development independently by the National Center for Education Statistics, and initial results appear in appendix A to "The Education Professions—1968" (OE–58032), and in *Selected Statistics on Educational Personnel* (OE–58041, 1970).

New Approaches to Developing Educational Staffing Models

A very real appeal of the supply-demand analysis is that it is based upon objective criteria. The Quality Criterion Estimate and similar approaches, in contrast, are based upon preferential standards, i.e., what a desirable class size is thought to be, and appropriate ratios for specialist support staff. Improvement of such new and somewhat broader approaches to incorporate objective criteria is badly needed. These would shed light on the question of whether there are enough classroom teachers to achieve our educational goals of providing quality education and equalizing educational opportunity. While it is not now known, it is possible that to realize quality education the number of teachers needed beyond those hired in any given year may be large. The National Center for Educational Statistics is designing a study to ascertain whether, within the same school systems, staffing in different schools is sensibly related to needs associated with the schools' pupil membership characteristics.

The underlying question is: "How many pupils of a given kind can one teacher of a given kind teach effectively in a school of a given

ELEMENTARY SCHOOLS

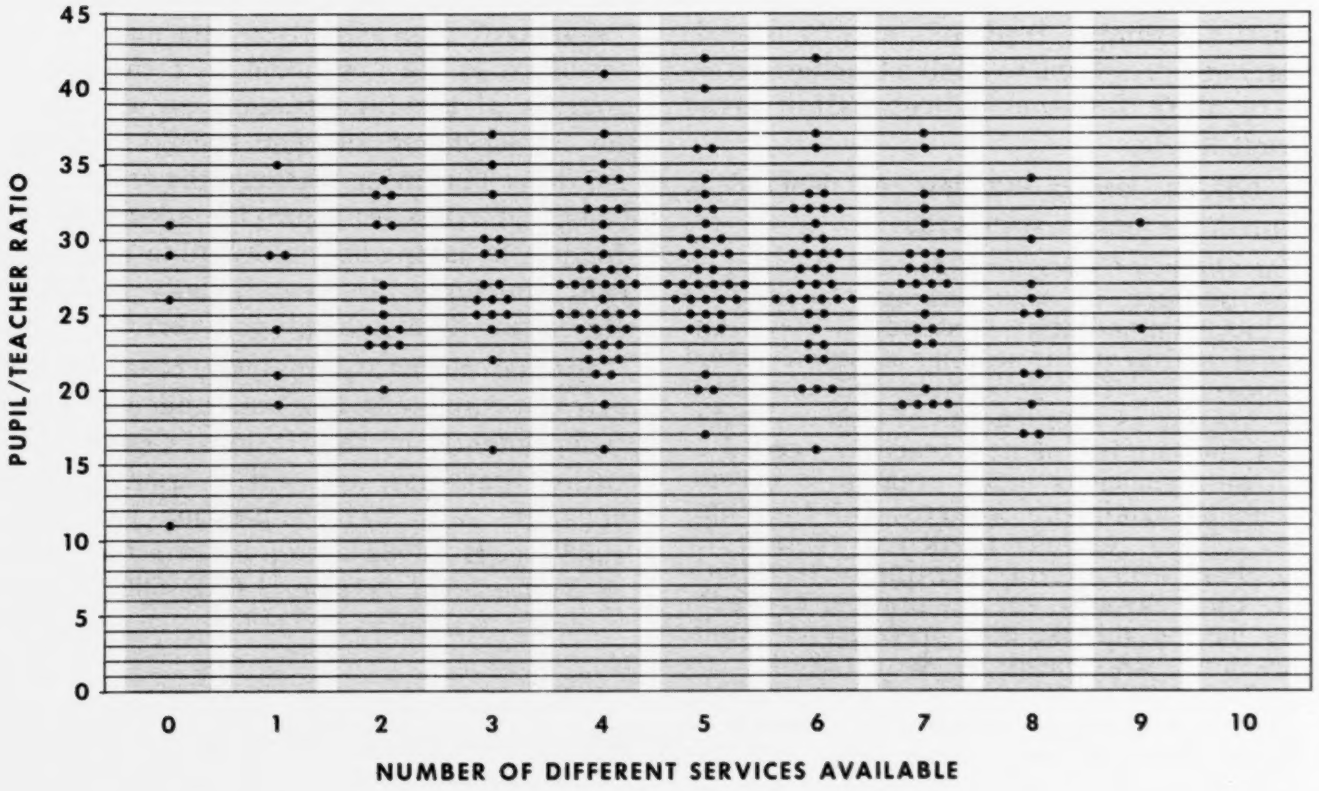

Diagram A

SECONDARY SCHOOLS

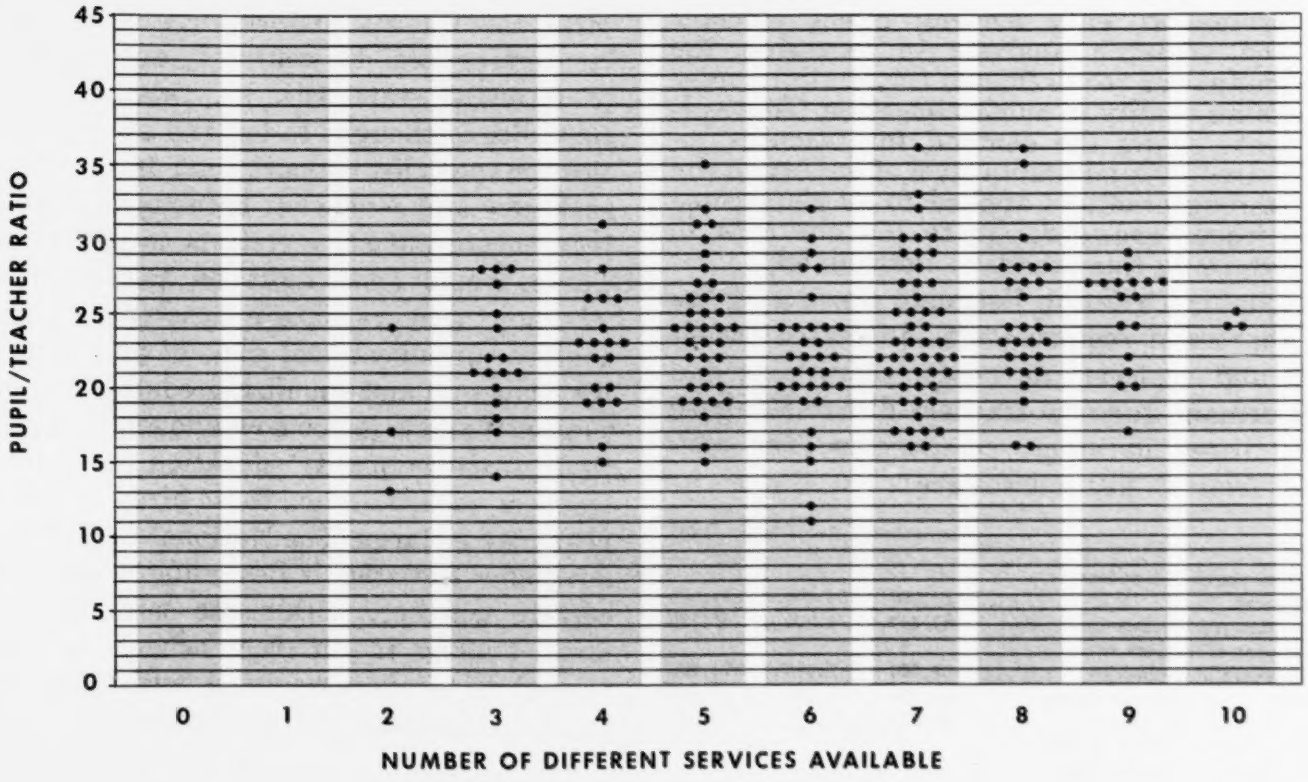

Diagram B

kind? Some of the data presented in chapter 2 of this report document that schools differ greatly in the relative and absolute numbers of children enrolled who have various educational problems. If these differences are not adequately taken into consideration in the allocation of teachers to schools, children in poverty schools will not have equality of educational opportunity.

At the present time it is not possible to answer the question of how many teachers are needed to provide *quality* education to all children. It is possible, however, to find out how closely the United States is approaching equalization of educational opportunity as measured by schools' staffing. This can be done by examining State differences in staffing ratios. The number of additional staff needed to equalize opportunity cannot be estimated in a straightforward, objective manner. Statistical ascertainment of inequalities is a step toward the more adequate objective measurement of "needs."

Among the determinants of "needs," or of effectiveness with a given staff, working conditions in the schools may well be the single most important factor—and a largely neglected consideration in the promising new approaches to developing educational staffing analyses. In some schools, a wide variety of such services are available, thereby relieving the classroom teacher of many extra responsibilities. These services include special or intensive instruction, remedial reading, guidance or psychological services, library services, instruction for the mentally retarded, etc. It is reasonable to expect that classroom teachers in resources, schools which provide few such services should have fewer pupils than those in schools rich in such services. That is, teachers who are held responsible for delivering to their pupils all or most of the supporting services should have fewer children in their classrooms.

For the first time, empirical national comparisons among schools with respect to the mix of teaching and supporting survey skills is now possible by using results from the *1969 School Staffing Survey* (pilot). More definitive data of this type will be provided by the comprehensive *1970 School Staffing Survey.*

Diagram A shows for all elementary schools in the United States the relation between the number of different supporting services available to pupils in the school and the pupil/teacher ratios in these same schools. If schools which provide a greater number of services had higher pupil/teacher ratios, and the schools which provide fewer services had lower pupil/teacher ratios, the imaginery line formed by connecting the midpoints of each column would go up from the lower left-hand corner to the right. Such a line would indicate that teachers in schools with few services had fewer pupils to manage. As may be seen in diagram A, the line for elementary schools is approximately parallel to the horizontal axis: elementary schools which have more services and schools with fewer services have about the same pupil-teacher ratios.

Diagram B provides the opportunity to examine the same relation for secondary schools in the United States. Here, there appears to be a slight positive relation: the secondary schools with fewer supporting services tend to have lower pupil/teacher ratios, indicating that the teachers in these schools are provided with somewhat more of an opportunity to discharge a greater range of responsibilities for their pupils.

End of Teacher Deferments

One new factor which may influence the supply and demand equation for teachers is the recent decision ending new draft deferments for teaching. Terminating new selective service deferments for teaching will not in general seriously affect teacher supply and demand. Of the approximately 70,000 men expected to begin teaching careers in 1970, between 10 and 12 thousand—15 to 25 percent—are likely to be inducted into the armed services. The number of inductees represents less than 5 percent of all the beginning teachers, male and female. This number is likely to be offset, in part, by returning veterans who are teachers or will become teachers.

Statistics from the National Center for Educational Statistics and from the National Education Association indicate:

(1) Approximately 300,000 new college graduates will be prepared to teach in 1970;

(2) Slightly less than 100,000—or almost one-third—will be men;

(3) About 70 percent of the males—70,000—can be expected actually to enter the teaching profession. The rest will go into other fields; and

(4) About 85 percent—or slightly less than 60,000 of those entering the schools—will be of draft age.

Allowing for those young men who do not meet physical requirements for military service and for those whose numbers will not be called, it seems safe to estimate that between 10,000 and 12,000 potential new teachers actually will be inducted into the services.

In addition, there are new opportunities in education for returning veterans, such as the new Career Opportunities Program developed by the Office of Education. This includes an effort to recruit returning veterans from low-income areas into the schools. The veterans, many without college degrees, will serve as teacher aides or technicians while pursuing related study to prepare them to become fully qualified teachers.

During the past two decades the proportion of men who are teacher education graduates has decreased somewhat, but the percentage of male teachers has increased.

In fact, of all the men teaching, only 3.4 percent are under 25 years of age. This may be an indication that the draft is not a vital factor in the teaching profession, in general. However, preliminary reports from some large central city school districts indicate that the percent of men in the schools with the greatest problems is already significantly lower than the national average; this percentage has already dropped several additional points during the 1969–70 school year following the removal of teaching as a draft deferment category. This situation and trend will bear further examination in the near future to determine if it is a trend.

Another factor deserving attention is the possible development of an extended VISTA program of domestic service in lieu of the draft. Many young men and perhaps many young women may enter such a program. This may help relieve the surplus problem.

Conclusions

First, one of the important results of a greater supply of teachers is that more selective recruitment of teachers will take place. Better criteria will be applied in addition to bare certification requirements which are often based on an accumulation of courses and credits and are not fully adequate measures of a teacher's ability to perform effectively in the classroom. Although the lack of satisfactory predictors of teaching success is a severe limitation in recruiting teachers, greater numbers of applicants will permit school systems to apply higher standards in granting teachers tenured status.

Second, more adequate supply of teachers coincides with the emergence of new concepts of public responsibility for quality in education, for broadening and equalizing educational opportunity, and for an orientation toward helping students to learn how to continue learning throughout life. If these are seriously adopted as priorities in education by school administrators, reexamination of staffing patterns will be in order. School boards and the public will have to consider trade-offs between budgets and effective results for all children in these new terms.

Finally, any meaningful prediction of the need for teachers, whether it be national or local, cannot be based solely on labor market considerations. Rather it must take into careful account the need for greatly increased quality in the education of our young people and the kinds of staffing patterns which will best meet this need.

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